SOCIAL SUPPORT AND ACCULTURATION PROCESS AMONG STUDY ABROAD ENGLISH AS A SECOND LANGUAGE STUDENTS IN THE UNITED STATES

A DISSERTATION SUBMITTED TO THE GRADUATE DIVISION OF THE UNIVERSITY OF HAWAIʻI AT MĀNOA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

IN

EDUCATIONAL PSYCHOLOGY

DECEMBER 2016

By

Saori I. Doi

Dissertation Committee:

Marie Iding, Chairperson
Katherine Ratliffe
Seongah Im
Hye Eun Lee
Richard Day

Keywords: Acculturation, Difficulties, ESL, Social Support, Study Abroad

ACKNOWLEDGMENTS

Firstly, I would like to express my sincere gratitude to my advisor Dr. Marie Iding, Chair of my dissertation committee, for her continuous support of my doctoral study, patience, and immense knowledge. Her guidance helped me tremendously from proposing to conduct this study to writing this dissertation. I could not have done this without you.

I would also like to thank the rest of my dissertation committee for their time, expertise, insightful comments and encouragement throughout this process.

A special thanks goes to my dear colleagues, George Harrison, for stimulating chats about analyzing survey responses and examining validity for many hours, Thuy Da Lam, for continuously reminding me that there will be an end to this dissertation journey, and Yahna Kawa‘a, for being always there to be my ears throughout my graduate studies.

I am also thankful to my colleagues and students in letting me conduct the pilot study and this study in the intensive English program.

Lastly, I am very grateful for my husband. You are my best social support resource. Arigato for your understanding and support over the years. I am looking forward to spending more time with our kids and you.

ABSTRACT

Studying abroad attracts a large volume of interests from various stakeholders such as higher education institutions, students, foreign education institutions and the private sector. While the number of study abroad students has continuously increased, the need of social support for such students has become evident for their optimal experiences abroad.

The conceptual framework guiding this study represented four acculturation components sojourners go through in new intercultural contexts—task identification and assessment, negotiation of meaning, acculturative change, and acculturative outcome. This study focused on the first three components, and aimed to examine difficulties for study abroad English as a Second Language (ESL) students, from whom students receive social support, and relationships among perceived difficulties, social support, and degrees of acculturation in terms of cultural identification.

I collected information from 187 study abroad ESL students enrolled in an intensive English program at a state university in the United States by using two self-developed scales for perceived difficulties and social support and adapting the Acculturation Index. First, by referring to descriptive statistics, and the results of independent sample t-tests and linear regression analyses, I explored perceived difficulties and social support along with qualitative analysis of open-ended comments. Second, I used structural equation modeling (SEM) to examine the relationships among perceived difficulties, social support and degrees of acculturation.

Results indicated that students experienced various types of difficulties. The difficulties in personal life were more varied than those in school life. In both school and personal contexts, students' concerns for their futures became evident. As for social support, students relied on the

same first language speaking individuals and those with whom they had to use English to different degrees. Moreover, individual-level factors played a role in degrees of perceived difficulties and the amount and sources of social support. The SEM results also revealed positive relationships between the first two components in the acculturation model, and the role of students' language proficiencies in the acculturation process became apparent too. However, the SEM results provided mixed support for the relationships between social support and degrees of acculturation. I discussed implications for the conceptual framework and future research.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1: INTRODUCTION

Background

Globalization affects our daily lives. Its effects vary depending on what society we live in, what personal beliefs and values we have, and what kinds of intercultural relationships we have with others. Globalization has also been evident in U.S. higher education in a number of ways: A growing number of partnerships between U.S. universities and foreign ones (Fischer, 2009; Fischer, 2015; NAFSA, 2003; Thrift, 2010; Wildavsky, 2011); more cross-national research collaboration (Eastwood, 2015; Thrift, 2010; Wildavsky, 2010); increasing attention to students' study abroad experiences (Sturgis, 2015); and the more active presence of study abroad programs on university campuses (Berdan, 2015; Williamson, 2010).

Moreover, many individuals travel to different parts of the world. Some choose to stay in a destination of their choice for an extended period of time and pursue their academic interests. The number of students who choose to study abroad is large. As of 2013, the number of international students enrolled in higher education institutions in the world was over 4.0 million (OECD, 2015).

The sheer number of students who study abroad clearly indicates that having a population of international students is crucial for higher education institutions in promoting internationalization on their campuses. Some universities, such as the University of South Florida and Oregon State University, have turned to the private sector for global recruiting of international students (Fischer, 2010). Furthermore, the impact of the study abroad market on the U.S. economy cannot be ignored. According to the annual report published by the Institute of International Education (IIE, 2015a), the

number of international students enrolled in U.S. higher education was a record high of 974,926 in the academic year of 2014-2015. The U.S. study abroad market was estimated to contribute more than $30.5 billion to the U.S. economy in 2015 (IIE, 2015a). International students not only pay tuition, but also spend on living experiences such as room and board, supplies, transportation, health insurance, and support for dependents, if any.

Globalization in the U.S. higher education has also strongly impacted my personal and professional life. In the late 1990s, I came to the United States as an exchange student from Japan. Not only did I have an opportunity to study for a part of my undergraduate degree, but I also completed my master's studies and am pursuing a doctoral degree in Educational Psychology. Studying abroad has been exactly what I have done for the past decade. Moreover, my professional career is in the field of English as a second language (ESL). I teach ESL courses to international students who come to the United States to study ESL for an extended period of time, ranging from 3 months to a few years. Needless to say, I am interested in working with them closely to help them become more proficient users of English.

Study abroad is one of the most promising and interesting areas to be researched in the field of second language acquisition, and researchers have investigated second language learning through study abroad experience (e.g., Arnett, 2013; Collentine, 2004: Dewey, 2004; Diaz-Campos, 2004; Freed, 1995; Freed, Segalowitz, & Dewey, 2004; Grey, Cox, Serafini, & Sanz, 2015; Lafford, 1995; Lapkin, Hart, & Swain, 1995; Martinsen, Baker, Bown, & Johnson, 2011; Masuda, 2011; Matsumura, 2001, 2003, 2007; Segalowitz & Freed, 2004; Talburt & Stewart, 1999; Taguchi, 2011; Wilkinson,

2002). Many studies have attempted to measure the effects of the study abroad experience on second language (L2) development, and the outcomes of study abroad experiences were measured by various language tests, including standardized tests such as TOEFL (Test of English as a Foreign Language) and MLAT (Modern Language Aptitude Test). There has not been as much research done on factors that could potentially facilitate or hinder learners' study abroad experiences, specifically difficulties that ESL students encounter and solutions including a social network that they utilize to deal with their difficulties while studying abroad.

Some research has been done on the relationships between L2 learners and their interactants (van Lier, 1998; Storch, 2002). As van Lier (1998) claims, language learners' relations with others form the most important part of their language awareness, and tend to facilitate increasing L2 learning opportunities because learners are in a social context. The system of relations that learners form with others has been referred to as social networks, which is defined as "informal social relationships contracted by an individual" (Kurata, 2007, p.05.1). While studying abroad, ESL students come across an unlimited number of occasions where they could form informal relationships with others such as classmates from the same home country, classmates from different home countries, teachers, neighbors, and native speakers of English in and outside the school context. However, whether ESL students actively pursue those informal relationships with others and actually deepen their relationships by maintaining communications with them is another issue.

In his presentation at the NAFSA: Association of International Educators in November 2008, Sean Kitaoka, a former counselor at the University of Hawai‘i at Mānoa

(UHM) Counseling and Student Development Center, discussed how various academic and personal situations affected Japanese international students' mental health while studying abroad at the UHM. He claimed that international students could solve social and academic problems with social support. The benefits of social support are described as:

> Social support is sought to such a large extent because, by and large, it works; it is one of the most effective means by which people can cope with and adjust to difficult and stressful events, thereby buffering themselves from the adverse mental and physical health effects of stress. (Kitaoka, 2008)

Given that social support is considered to be a crucial factor to help international students experience a healthy and fruitful study abroad time period, it appears useful to examine how ESL students form such social support networks with others and utilize them as a means to cope with and adjust to difficult and potentially stressful events and situations.

Problem Statement

A large number of students from Pacific Islands and Asian countries come to the United States in order to study English as a second language (ESL) for an extended period of time. Those who come here to study abroad often have academic or professional careers in their home countries, but they decide to study abroad to improve their English proficiency for various purposes: to prepare themselves for better career opportunities to get admitted to degree programs in English-speaking countries, or to get credits for their on-going undergraduate/graduate studies in their home countries, to name a few.

For such international students who come to the United States to study abroad, I have taught ESL courses on the University of Hawaiʻi at Mānoa (UHM) campus over the past 15 years, and from time to time, I have observed some international students not being able to adapt to a new environment and suffer from many kinds of problems related to their families, friends, school life, or school work. On some occasions, those who find it difficult to adapt to the new environment and deal with problems that they encounter end up leaving the program before their expected end date [about 2 -3% of the students in New Intensive Courses in English (NICE) Program, an ESL program on UHM campus (L. Nakandakari, Student Services Coordinator, personal communication, April 8, 2016)], taking many unexcused absences from school, failing courses, and not being able to improve their English proficiency. On the other hand, there are also students who appear to be able to handle the adjustment to the new environment and complete academic tasks without getting themselves into undesirable situations. These students find social support. This observation is not applicable only to the particular situation of studying abroad in Hawaiʻi, and is also noted in previous research (e.g., Schwarzer, 2009). It appears that the availability of social support contributes to whether or not students successfully manage to cope with difficulties they face while studying abroad.

Purpose

The purpose of this study is threefold: (a) to investigate types of difficulties that students experience while studying abroad as well as to what extent the use of social support contributes to their abilities to deal with the difficulties they face, (b) to examine how perceived difficulties and the use of social support are related to degrees of acculturation among study abroad students, and (c) to develop survey scales to collect

responses on difficulties that students experience and types of social support that they utilize.

A former counselor at the UHM Counseling and Student Development Center, Sean Kitaoka, (2008) reported that international students solve social and academic problems with social support. In the field of health studies, social support is defined as "a social network's provision of psychological and material resources intended to benefit an individual's ability to cope with stress" (Cohen, 2004, p. 676). For the purpose of this study, social support is operationally defined as including support from students they meet in school (who have the same or different nationalities), instructors and student services personnel at school, friends in and outside the school contexts, neighbors, relatives, church members and so forth. Types of difficulties that students tend to face during study abroad have been identified in my pilot study (Doi, 2009), and will be described in the literature review. Identifying what kinds of social supports students utilize and how they build and use supportive social relationships with others can be immediately useful for instructors and student service personnel in an ESL program when orienting students and providing them with on-going advising during their study abroad period. Understanding social support systems will inform counselors whose duties include counseling study abroad students who come to seek help with psychological problems. Moreover, the information gained through this study will benefit instructors whose responsibility it is to help prospective students prepare for a new environment before they move to an English speaking country. Last but not least, it will surely benefit teaching practices of ESL teachers in terms of student advising and mentoring, as their goal is to help students become proficient in English and confident as global citizens.

Conceptual Framework

Below is the visual representation of my conceptual framework for this study (see Figure 1).

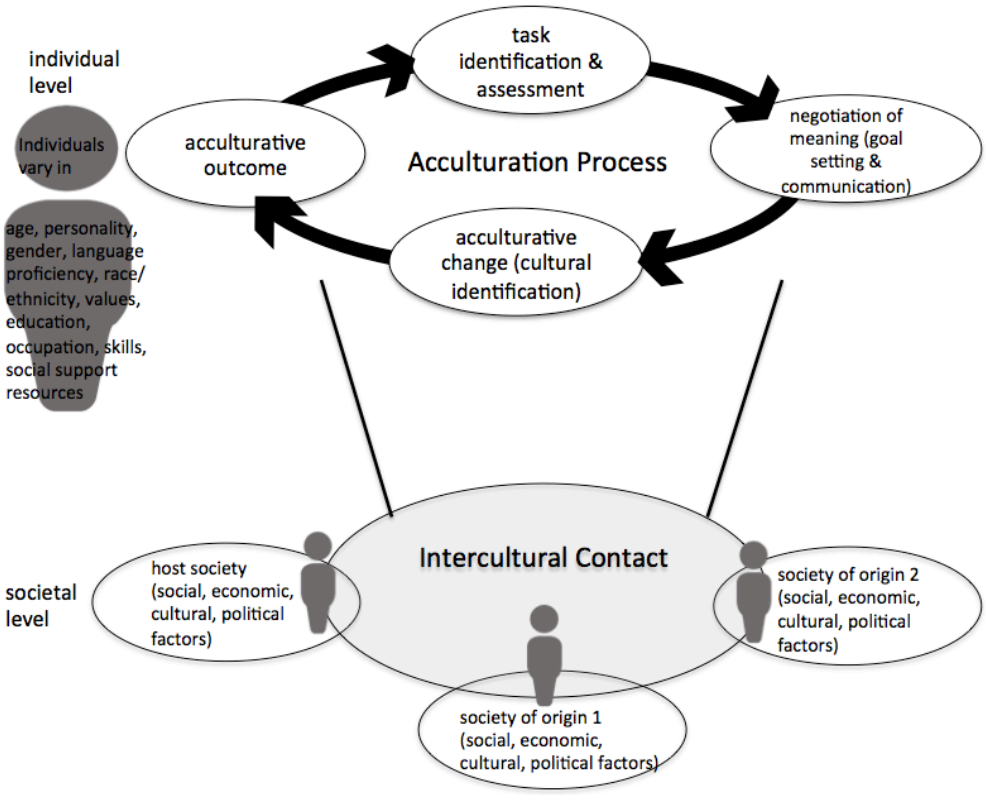

Figure 1.1 Conceptual framework

Intercultural contact. In the globalized world, a vast number of people cross borders every day. Many international students choose to study abroad for a certain period of time to pursue their academic interests and goals, and the number of such students has been increasing continuously (OECD, 2015). Upon their arrival in a new location, international students need to communicate with people in the host culture, carry out needed tasks in their personal and academic lives, and work toward their academic goals. International students communicate not only with people from the host

society, but also other international students from the same country of origin as well as different countries of origin.

This is further complicated by a recent shift in the notion of culture from static to active, or from macrocultural to microcultural (Fontaine, 2006). Previously, in the field of comparative cultural studies, and still commonly among lay people, culture is viewed at the macrocultural level, and is usually associated with nationality, ethnicity, or profession, to name a few. This macrocultural perspective tends to be general and static. Culture is considered to be a set of values, beliefs, and rules, passed from one generation to another, understood in terms of shared perspectives among a people. Culture is viewed as a cognitive notion (Fontaine, 2012).

This macrocultural perspective of culture may be initially useful for those who are preparing to move to a new location in order to understand its social, economic, cultural, and political situations. However, it also tends to be too broad and impractical when they need to get a specific task done in a new intercultural setting. In other words, the macrocultural perspective is not applicable to constantly evolving and changing contexts, since culture is a "shared way of looking at the world" (Fontaine, 2006, p. 41) among individuals who can vary in age, personality, gender, language, race, ethnicity, values, educational background, occupation, skills, and available resources. This latter view takes the microcultural perspective, and is a psychophysical mindset accompanying feelings and behaviors that we experience in constantly evolving situations, in contrast to the cognitive take on the definition of culture, which traditionally views culture in the macrocultural perspective (Fontaine, 2012).

This means that culture is something that can trigger our psychophysical responses to new incoming stimuli surrounding us at every moment. What we experience in a context entails various responses from us, for instance, feelings that we have, ideas and thoughts that we come up with, and physiological reactions we have in our body (e.g., sweating, agitation, relaxation, rage). In this sense, culture is very real, and we can feel it. It is not just a big idea in our heads. In order for international students to participate in intercultural communication effectively, it is useful to pay attention not only to the use of language and the exchange of meanings shared among participants, but also to how their whole bodies react to a particular context.

Since what we experience in our everyday life is constantly changing, we have to find new ways to adapt to changes in surrounding environments. The process of finding new ways to deal with new situations creates culture, the optimizing process, by which we attempt to optimize solutions to deal with tasks or problems in a particular micro culture, for example, an organization or a relationship. Therefore, it is important for us to keep in mind this microcultural perspective, which I believe is more relevant to what international students experience during the acculturation process than the macrocultural one. Acculturation is defined as "a cultural learning process" by Rudmin (2009, p. 110). By taking the microcultural perspective into consideration, I would like to define acculturation as a learning process for optimization.

At this micro level, international students who are from the same country of origin can vary in their values and beliefs. Their common culture can be unpredictable since what constitutes a culture depends on which people are involved, the tasks, and the environment. Therefore, even when international students from the same country of

origin communicate in a new intercultural context, their backgrounds, experiences, and expectations of how given tasks are to be completed can differ, which may lead to stress. There is no doubt that degrees of stress that international students experience can be extremely high when they need to communicate with fellow international students from different countries of origin and/or host nationals due to more variability in factors that individuals bring to communication.

Acculturation process. Once international students arrive in a new country, they are immediately faced with a series of tasks that they need to complete on their own, and/or with other individuals who could be fellow international students, their teachers, school personnel, or people in their community. Tasks that international students need to complete in their academic lives include completing homework assignments for classes, carrying out group work with classmates in class, conversing with local students, having lunch with other international students, and so forth. As for tasks in their personal lives, they do grocery shopping, figure out how to get around a community, communicate with their roommates and/or host families, engage in small talk with strangers and neighbors, and pay bills, etc. A large number of tasks for international students can continuously change, and how to go about completing each task can also depend on with whom they need to complete it as well as what expectations and skills they have. Therefore, the first phase in the acculturation process is to identify and assess what tasks they need to face and complete.

Task identification and assessment. This phase of the acculturation process can trigger some stress in each individual. If they judge certain tasks to be relatively easy, then their stress level should be low. On the other hand, their stress level can be high if

tasks are judged to be difficult due to a lack of skills and experiences needed in completing them, poor prior experiences in completing similar tasks, having to complete them with those who have never worked together, or time limitations, high personal performance expectations, and/or the availability of support resources. In other words, individuals perceive the difficulties of tasks differently from each other in a given intercultural context. It is also important to note that the level of language proficiency in the target language (i.e., English for ESL students) is crucial for determining the initial assessment of a task's difficulty level, especially when international students have to complete tasks with other international students from different countries of origin or other people in the local community.

Negotiations of meaning. When the initial identification and assessment of given tasks is over, international students engage in negotiations of meaning. They may need to negotiate with fellow international students, local students, teachers, school personnel, roommates, host family, neighbors, etc. There are several stages involved in negotiations of meaning. First, they have to find out what expectations, skills, and prior experiences that other individuals bring to completing a task. If they know each other well and have worked on similar tasks together before, this part of negotiation could take only a very short time, or could even be done without engaging in an explicit discussion. Contrary to this, if they have never met or worked together before, they can either spend time in sharing and finding relevant information about their background, experiences, and expectations, or jump right into working on a task.

After learning about each other's information relevant to completing a task, students need to agree on components involved in a task and set a goal for the task. A

goal is defined by goal setting theory as "the object or aim of an action" (Locke, 1996, p. 118). Goal setting theory started in the field of industrial-organizational psychology in the mid 1960s, and its primary interest has been to "predict, explain, and influence performance on organizational or work-related tasks" (Locke & Latham, 2002, p. 705). In other words, industrial-organizational psychologists have been interested in explaining why some people (ability and knowledge aside) perform better than others on work tasks.

Along with other theories of motivation such as social cognitive theory (Bandura, 1986), goal setting theory researchers have argued that personal goals or standards play an important role in the self-regulation of behavior (Donovan & Williams, 2003). Goals often refer to future valued outcomes. Therefore, the setting of goals is "first and foremost a discrepancy-creating process" (Locke & Latham, 2006, p. 265), and also "implies discontent with one's present condition and the desire to attain an object or outcome" (Locke & Latham, 2006, p. 265). Once international students assess a task and identify a discrepancy between the current state and the desired outcome, they start to strive to achieve goals by managing their thoughts and actions while working toward an outcome, and self-regulation becomes a key component to the successful accomplishment of various goals and assignments (Lee, Sheldon, & Turban, 2003).

When setting a goal for a task with others in a given intercultural context and working toward completing the task, language plays a crucial role. Language can help us convey our thoughts and feelings to others, and negotiate meaning with those who are also involved in completing a task. While the role of language use in intercultural communication is apparent, for international students who are studying abroad to primarily learn English as a second language, not being proficient and fluent in English

could easily cause problems such as frequent communication breakdowns and misunderstandings. These communication breakdowns and misunderstandings could, in turn, trigger some degrees of stress and concerns in international students.

However, it is equally important to note that conversation, that is, negotiation of meaning, is crucial for ESL learners' language development. In the field of second language acquisition, researchers who are interested in the role of interaction for learners' language development have argued that conversational interactions in a second language are not just a practice ground for using specific language features, but that they can form the basis for language development (Gass, 2003). This idea about the role of interaction for second language learners is expressed by Long (1996) as the Interaction Hypothesis:

> *negotiation for meaning*, and especially negotiation work that triggers interactional adjustments by the NS [native speaker] or more competent interlocutor, facilitates acquisition because it connects input, internal learner capacities, particularly selective attention, and output in productive ways (Long, 1996, pp. 451-452).

In other words, meaning negotiation is accomplished through a variety of modifications which naturally arise in conversational interaction. Examples of modifications include clarification, confirmation, and repetition. By engaging in such modifications, second language learners are naturally pushed to notice a gap between their existing knowledge about specific language features and the correct use of those language features in input they receive, and to produce output that incorporates the correct use of the language features that have been brought to their attention.

In addition to the role of language use during the goal setting process and execution of a task, the use of social support resources can facilitate how international

students negotiate meaning with others. Social support can include instrumental, informational, and emotional support. These different types of social support can be helpful for international students who need to negotiate meaning in order to complete a task, because social support can offer valuable resources for international students to put into immediate use. At the same time, social support can also function as stress buffering for those with varying degrees of stress related to acculturation (Chao, 2012). Having social support may reduce psychological stress for international students during the negotiation of meaning. Therefore, international students who have social support may be able to handle a task more efficiently and smoothly than those who do not.

Acculturative change. After international students negotiate meaning with others to get a task done, they may manage to complete the task successfully or fail to accomplish the task at the level that they initially aimed. Depending on how successfully they can get a task done as well as degrees of acculturative stress they perceive while working on a task, their attitudes, values, and beliefs can go through some changes. John Berry argued (1997) that acculturation is "a change in the *psychology* [emphasis in original] of the individual" (p. 9), and we can expect that individuals in a new intercultural location will experience some degrees of change in their psychology during the acculturation process. More specifically, various changes can occur in many areas in the process of acculturation, but one of the major changes that one can experience is related to one's cultural identification (Ward, 2001). This cultural identification change in one's cognitive domain concerns how individuals consider themselves in terms of a relationship with others.

Upon their arrival in a new location, international students may be eager to get integrated with people in their host community, and they may start to develop likes or dislikes about various aspects found in the host location. However, at the same time, they continue to have some degrees of connections with people and culture in their home countries. Maintaining the connections with people in their home countries is particularly important because most international students intend to and are allowed to stay in a foreign country only for a certain duration of time. While interacting with people that they meet in the host location and dealing with tasks that they need to accomplish, they may also experience some changes in their ideas and attitudes about different aspects of their home country. Therefore, we can speculate that international students go through some changes in their cultural identifications in respect to both their home and host culture, by participating in the acculturation process. According to Berry (2009), there are two fundamental dimensions of acculturation: maintenance of original cultural identity, and maintenance of relations with others in a given host group. In this study, they are called *co-national identification*, and *host-national identification*.

Acculturative outcome. Along with acculturative change in one's culture identification, we expect to observe some changes in their host national identification and co-national identification. One of the most influential theoretical frameworks used to conceptualize acculturation outcomes is the ABC model of culture contact (Ward, Bochner, & Furnham, 2001), which categorizes acculturative responses into three groups: affective, behavioral, and cognitive changes. As discussed earlier, one of the acculturative responses occurs in one's cultural identification in the cognitive domain.

Moreover, this model illustrates two types of acculturation outcomes: psychological adjustment and sociocultural adaptation.

The research focusing on the affective domain of acculturative change examines feelings of satisfaction, well-being, anxiety, and concern, and takes a stress and coping perspective (Wilson, 2013). Since this line of research has come out of the field of health studies, it tends to emphasize the consequences of intercultural contact on one's affective state. Ward and Kennedy (1999) proposed to call outcomes that are related to one's affective domain as psychological adjustment.

The other type of acculturation outcome relates to one's behaviors. In an intercultural context, how well individuals can acquire culturally specific and appropriate skills and knowledge is important because it can help them to negotiate meaning with others effectively (Ward & Kennedy, 1999). This behavioral component of intercultural competency is called sociocultural adaptation (Wilson, 2013). Sociocultural adaptation is based on the culture learning framework (Furnham & Bochner, 1986), and has been studied as an adaptive measure of intercultural competency by using the Sociocultural Adaptation Scale (e.g., Ward & Kennedy, 1999). There are a few common findings that are relevant to the target population of this study, international students (Ward et al., 2001). First, those who are proficient in a language spoken and have culture-specific knowledge, more extensive contact with host nationals, and a longer length of residence in the host location tend to have a lower level of sociocultural difficulties. Second, sociocultural adaptation tends to occur during the first four to six months of the stay in an intercultural location, and tends to diminish up to the end of the first year. Third, cultural and ethnic similarity is associated with fewer sociocultural difficulties.

Current Study

The conceptual framework that I have described so far illustrates how I define acculturation, and what sort of acculturation process international students are expected to go through after arriving in a new intercultural location. I am interested in investigating relationships among the first three components in the acculturation process in the conceptual framework. More specifically, I would like to find out what tasks international students find difficult to carry out, what social support resources they use to help them negotiate meaning with others, what acculturative changes occur in terms of their cultural identification, and how these relate to each other.

The current study provides an in-depth examination of ESL study abroad students' acculturation process in terms of types of difficulties that they face, types of social support resources that they utilize to deal with difficulties, and changes in their cultural identifications (i.e., co-national identification, and host-national identification). Since I developed my own survey scales for this study, great attention will be given to how I examined validation evidence for each scale.

The current chapter has described the background of the study, the statement of the problem, the purpose of the study, and the conceptual framework to situate and guide the study. Chapter 2 gives a review of the literature relevant to this investigation by covering the following topic areas: sojourners, study abroad in higher education, acculturation, perceived difficulties, and social support. It also illustrates some methodological characteristics of previous studies focusing on relationships among social support, acculturation, and/or adjustment outcomes, followed by specific research questions and hypotheses to be focused on in this study.

Chapter 3 provides an overview of the research methodology in the study along with the information necessary to situate this study, for instance, the location, participants, instruments, pilot study, procedure, and assumptions and limitation of the study. I give special attention to how I designed and revised two out of the three scales utilized in the study and how I examined validity evidence for the three scales. The fourth chapter presents the main empirical findings that were revealed in data analysis. In the final chapter, I discuss the findings further in relation to the research questions, the conceptual framework that I have described earlier, and the existing literature on perceived difficulties, social support, and acculturation among sojourners. Implications and limitations of the findings and directions for future research are also described.

CHAPTER 2: REVIEW OF THE LITERATURE

This chapter is organized with the following structure: First, I will discuss five relevant issues framing this study: sojourners, study abroad in higher education, acculturation, perceived difficulties, and social support. There will be a section on methodological characteristics common in studies on social support and acculturation. Lastly, I will present research questions along with a proposed model of relationships among constructs that I will investigate.

Sojourners

In this global world, a large number of people travel to culturally different locations, and the term 'sojourner' has been used to describe those who travel between different cultures (Ady, 1995; Ward et al., 2001). Some of the underlying assumptions about this term are that (a) their stay in a new location is temporary; and (b) they have an intention to return to the culture of origin once they achieve the purpose of their stay. Examples of sojourners include business people, international students, missionaries, military personnel, diplomats, immigrants, refugees, and tourists (Ward et al., 2001). Among those who leave their home countries for new destinations, there are people who choose to stay in a destination of their choice for an extended period of time and pursue their academic and professional interests such as studying for a degree at a higher education institution, taking language classes in a country where the language of their interest is commonly spoken, or conducting research in collaboration with or under the supervision of experts in a particular field of studies.

A great deal of scholarly attention has been paid to intercultural contact between sojourners and those in host cultures, and/or among sojourners (Ward et al., 2001).

Intercultural contact that sojourners, specifically international students, face in new contexts can cause culture shock to various degrees (Ward et al., 2001). Study abroad is positively viewed as a "dynamic" process of preparing for and orienting to, as well as acquiring skills relevant to the new intercultural setting (Zhou, Jindal-Snape, Topping, & Todman, 2008, p. 65), rather than a static one. This study focuses on international students who leave their home countries to study abroad among various kinds of sojourners.

Study Abroad in Higher Education

As of 2013, the number of international students enrolled in higher education institutions in the world was more than 4 million (OECD, 2015). This indicates the current worldwide trend of a steady increase of international student enrollment in higher education over the past few decades, from 0.8 million in 1975 to 4.5 million in 2012 (OECD, 2015). China and India are the two largest exporters of study abroad students at this moment, and Asian students represent 53% of the study abroad student population worldwide (OECD, 2015). The sheer number of students who study abroad suggests that having populations of international students is desired by higher education institutions to promote internationalization on their campuses. International students contribute to scientific and technical research, share their unique perspectives with their fellow students in classes, and help prepare their fellow students for global careers while they build long-term academic, business, and intercultural relationships.

The United States in the international study abroad market. There are countries that international students favor as study abroad destinations. The United States is the number one destination among many countries hosting international

students, representing about 19% of the study abroad market share (OECD, 2015). Market share indicates a percentage of a market (in terms of the number of international students enrolled in higher education institutions) accounted for by a specific country. The United States is followed by the United Kingdom (10%), Australia and France (6%), Germany (5%), Canada and Japan (3%). These destinations comprise more than the half of the market share worldwide (OECD, 2015). However, it is interesting to note that, although the number of international students who come to study abroad in the United States has been increasing, the United States experienced a significant drop as a preferred destination of foreign students from 2000 to 2012, falling from about 23% of the global market share to 16% (OECD, 2014), with a small increase to 19% in 2013 (OECD, 2015). This can be observed in the proportion of standardized test scores sent by foreign students to business programs at American institutions, which fell to 59 percent in 2009 from 65 percent in 2008 and 75 percent in 2000 (Mangan, 2009).

This drop in the U.S. market share may be attributable to several changes in circumstances that surround potential study abroad students. First, conditions of entry for international students to the United States have gotten tighter due to serious concerns of national security following the September, 2001, attacks. Second, the decrease may also be related to tuition fees required by host institutions. International students in the United States are usually charged higher tuition fees than domestic students. Some international students are choosing other destinations offering similar educational opportunities at lower cost such as France and Germany, countries that reduced tuition fees for international students to the same level as those paid by domestic counterparts (OECD, 2015). New Zealand, which has also reduced tuition fees for international students to the

same level as those paid by domestic students, has also been an attractive location for those who wish to pursue their studies in advanced research programs since 2005 (OECD, 2014). A survey which examined the attitudes and perceptions of prospective students who are considering studying in the United States shows that cost was the number one obstacle to study abroad, and that 62 % of respondents perceived tuition in the United States to be expensive (IIE, 2015b). Third, more international students are choosing to study in countries like Australia where they can find part-time work to pay expenses and may be able to obtain jobs upon completion of their studies more easily than in the United States (McMurtrie, 2009). Some countries have loosened up their immigration policies to encourage international students to get temporary or permanent immigration status in those countries (OECD, 2015). These compounding factors may be deterring potential international students from choosing the United States as a study abroad destination.

As international students have social and educational impacts in host institutions, they clearly have substantial economic impacts too. Accepting international students means that host institutions can have more revenue from tuition fees, and that the local economy to which host institutions belong can benefit from domestic consumption by international students. According to the annual report published by the Institute of International Education (IIE) (2015a), the number of international students enrolled in U.S. higher education increased by 10% over the previous year to a record high of 974,926 in academic year 2014-2015. Although the proportion of international students to the total number of students enrolled in U.S. higher education was relatively small (i.e., 4.8%), the U.S. study abroad market was estimated to contribute more than $30.8

billion to the U.S. economy in 2014-2015 (IIE, 2015a), and 72.5% of their funds came from outside of the United States, including family and personal sources and funds from their home country governments or universities (IIE, 2015a). Hosting more international students is quite beneficial for host institutions and their local economies. While studying abroad, international students have to pay tuition and spend on various kinds of living expenses, all of which contribute to finances of host institutions and local economies.

Countries such as the United States can receive tremendous economic benefits by hosting international students in their higher institutions and also charging them higher tuition fees. Some countries in the Asian-Pacific region have explicitly included international education in their socio-economic development strategies, and have initiated various policies in order to attract more international students to study in their higher education institutions (OECD, 2015).

It is interesting to note that while some universities in the United States have actually seen increases in applications from international students, more and more U.S. universities have had to actively look for ways to tap into the international student market (McMurtrie, 2009), due to various factors that appear to have been deterring international students from choosing the United States as a study abroad destination as discussed above. For example, many U.S. universities have been attempting to expand the area of online distance learning (Carnevale, 2005). Some universities have hired the private sector to recruit international students (Fischer, 2010). Some states in the United States have made legislative changes in their policies so that more international students can be enrolled in public institutions. For example, public higher institutions in the State of

Colorado can recruit more international students because a state law which caps the share of out-of-state students has been changed to exclude international students from the out-of-state cap (Choudaha & Chang, 2012).

In addition to growing efforts in recruiting by higher education institutions, more intensive English programs and community colleges have started to play a role as a pathway program for international students (Baxton & West, 2014; Choudaha & Chang, 2012). More specifically, it has become more common in the past few years that different units within the same higher education institution establish agreements to work together for a shared admission goal. For example, admissions offices, while working with intensive English programs in the same higher education institution, offer conditional admission to international students. This is to ensure that international students will acquire necessary English skills by taking intensive English courses before starting their studies in the degree programs of their choice (Baxton & West, 2014).

Furthermore, internationalization of higher education has been especially driven by "a commercial and entrepreneurial spirit" (Huang, 2007, p. 423), along with the fast economic globalization and advancement of informational technology, and some U.S. and European universities are exporting their higher education activities to Asian countries such as China and Japan (Ennew & Fujia, 2009; Huang, 2007).

Places of origins among international students in the United States. According to *Open Doors 2015* (IIE, 2015a), the top five countries of origin for 60.2% of international students studying in the United States are China (31.2%), India (13.6 %), South Korea (6.5%), Saudi Arabia (6.1%), and Canada (2.8%). Countries with double-digit percentage increases from the academic year 2013/2014 to 2014/2015 are India

(29.4%), Kuwait (24.0%), Nigeria (19.9%), Mexico (15.4%), Spain (14.8%), Vietnam (12.9%), Venezuela (12.4%), Saudi Arabia and Iran (11.2%), and India (10.8%). On the other hand, there are some declines in numbers from some major sending countries, for example, South Korea (-6.4%) and Canada (-3.8%). In Hawai‘i, given its unique location in the middle of the Pacific Ocean, international students come from different countries. The top five places of origins for those who are studying abroad in Hawai‘i are Japan (21.5%), South Korea (12.9%), China (7.8%), Norway (5.0%), and Taiwan (4.5%). The economic contribution from international students' tuitions/fees and living experiences in Hawai‘i was estimated to be about $104.5 million in 2014 (IIE, 2015a).

Popular fields of study among international students in the United States. *Open Doors 2015* (IIE, 2015a) indicates that about 40% of international students in the United States are studying either business and management (20.2%) or engineering (20.2%). These top two fields of study are followed by math/computer science (11.6%), social sciences (7.8%), physical and life sciences (7.6%), arts (5.8%), and intensive English (5.0%).

For the purpose of this study, enrollment in intensive English programs, which are usually designed to help international students improve their proficiency in English as a second language, is further examined here. The total number of international students enrolled in intensive English programs in the United States has nearly doubled in the past five years [i.e., from 26,059 (2009/2010) to 49,233 (2014/2015)]. This is only equivalent to about 5.0% of the international student population in U.S. higher education, but the proportion of students who choose intensive English has increased by 13.3% in the academic year 2014 to 2015 from the previous year. This clearly shows that there has

been a steady increase in international students who choose to study abroad in the United States and take intensive English courses.

There are two things that should be noted with respect to the reported number of intentional students in intensive English programs. First, this number does not include students who are enrolled in non-intensive English programs, which international students often choose for recreational and personal enhancement learning opportunities outside their classrooms while studying abroad. Therefore, the actual number of international students who come to the United States to study English may be larger than that reported. Second, some of those who are enrolled in intensive English programs in U.S. higher education institutions intend to improve their English skills first and later move on to degree programs. Although the number of such students is not clearly known, it is reasonable to assume that more students have recently started to enroll in intensive English programs as pathway programs in order to acquire English and the academic skills necessary for their degree-focused studies in higher education institutions (Baxton & West, 2014).

Influential factors in international student decisions to study abroad. In order to understand how international students come to make decisions to study abroad, it is important to be aware of factors that influence students' decision-making processes. Through the literature review on this topic, I have identified a list of influential factors, which presents a complex picture about factors affecting intent to study abroad and potential barriers to study abroad. Influential factors and potential barriers can be grouped as, (a) personal and family background, (b) academic and curricular considerations, (c) future investment, and (d) other factors.

Personal and family background. Personal and family background, the family's socioeconomic status (SES), and levels of parents' education are influential in students' decisions on studying abroad (Salisbury, Umbach, Paulsen, & Pascarella, 2009). Affordability is also one of the main influential factors for students considering whether to study abroad or not (Chow, 2011; OECD, 2015). In addition, the experience of traveling abroad appears to affect a student's intent to study abroad (Carlson, Burns, Useem, & Yachimowicz, 1990). Not surprisingly, families' SES, level of parents' education, affordability, and previous experiences of traveling abroad seem to be interrelated. Gender is also an influential factor, that is, females are more likely to consider studying abroad than males (Salisbury et al., 2009; Salisbury, Paulsen, & Pascarella, 2010). In addition, students with a high interest in reading and writing as well as those who are more open to diverse ideas and people are more willing to study abroad (Salisbury et al., 2009).

Academic and curricular considerations. Academic and curricular considerations are also factors. Students consider whether their academic interests and goals will match with learning experiences that they could obtain while studying abroad. Students appear to take the language of instruction into consideration (OECD, 2015) because their proficiency level in the language of instruction while studying abroad can determine what types of study abroad experiences they will be able to pursue: for example, degree-oriented studies are more feasible if they can use the language well, and intensive English studies are recommended if they need to learn the language. If students are not interested in using or learning the language necessary to engage in activities in host institutions, studying abroad is not even an option for them. Successful academic experiences

(Carlson et al., 1990) and high interest in reading and writing (Salisbury et al., 2009) are both reasonable influential factors in students' decision-making processes.

Aside from the language of instruction, the availability or a lack of higher education institutions in their home countries appears to influence students' decision-making process (OECD, 2014). If choices of higher education institutions or types of studies and research that can be pursued are limited in home countries, students are perhaps more likely to consider choosing to study abroad in order to pursue their academic goals. Moreover, academic reputations of particular higher education institutions or programs in a field of study may carry some extra weight in the decision-making process (OECD, 2014).

Curricular viability also affects students' intent to study abroad. For instance, social sciences majors are the most likely to study abroad, and those undecided about majors are also likely to study abroad (Salisbury et al. 2009). On the other hand, those who major in education and STEM (science, technology, engineering, or math) appear to have more curricular restrictions that prevent them from considering study abroad options (Salisbury et al. 2009). However, this finding regarding STEM majors needs to be interpreted with a little caution. Research conducted by Salisbury et al. gathered data from American students in two- and four-year institutions in the United States. As discussed above, four of the top five most popular fields of study abroad among international students in the United States are business and management (20.2%), engineering (20.2%), math/computer science (11.6%), and physical and life sciences (7.6%) (IIE, 2015a). While American students who major in STEM are less likely to study abroad (Salisbury et al., 2010), many international students are coming to the

United States to pursue their studies in STEM (IIE, 2015a). This discrepancy might be due to the following factors: (a) The respondents in Salisbury's studies were college students while the source of responses for the IIE report was higher education institutions with undergraduate and/or graduate student populations. (b) For international students who leave their home countries for the United States to study abroad, the United States may be offering more opportunities to pursue their studies and research in the STEM fields than do their home countries, and it may also be the case that the degrees, particularly graduate degrees, obtained from the U.S. higher education institutions are highly respected in their home countries (OECD, 2015).

It is also important to note that flexibility of degree requirements or transferring credits is an influential factor in students' decision-making process (OECD, 2015). Particularly for those who wish to take some time off from their studies at home institutions in order to study abroad, being able to use credits obtained while studying abroad toward their degree requirements at their home institutions is definitely an advantage. In addition, inflexible sequenced curricular requirements do not help students to even consider studying abroad as an option for their academic studies, especially in business and engineering (NAFSA, 2003).

Future investment. Students' decision-making processes also seem to be related to the view on studying abroad as one form of future investment. In this globalized world, one of the goals of studying abroad is to become "global citizens" by growing interculturally (Pederson, 2010), and students who have experienced studying abroad are often considered better candidates for employment in the international workplace (Anderson, Lawton, Rexeisen, & Hubbard, 2006). Therefore, studying abroad can be a

differentiating factor for job hunting, a career advantage, since it provides students with various intercultural and global experience opportunities. (Fischer, 2012; Gray, Murdock, & Stebbins, 2002; Martinez, 2011; Obst & Forster, 2005; OECD, 2015).

Other factors. There are some factors that could be potential barriers for students to study abroad. For example, students may encounter a negative attitude toward studying abroad in their home countries (NAFSA, 2003). They could feel this attitude from faculty that they take their courses from at their home institutions, or from family members who have not experienced anyone else pursuing higher education. Without positive support and encouragement from people around them, it may be difficult for students to consider studying abroad as a viable course of action. Some students get overwhelmed by the amount of necessary paperwork and decide to give up their study abroad option because of the complexity of the application and preparation process (Chow, 2011). This includes paperwork involved in applying for enrollment in programs they have chosen as well as visa or travel related permits, completing necessary health and insurance forms, getting necessary documents translated, and making arrangements about transportation from their countries and accommodations in their destinations. Last but not least, fear of discrimination or racism abroad is a concern for some students depending on their ethnic backgrounds and where they wish to study (Salisbury, Paulsen, & Pascarella, 2011).

Acculturation

Acculturation has been always a part of our human history as humans have moved to different geographical and cultural locations for various reasons (Rudmin, 2003; Rudmin, 2009). However, from the mid 1900s, acculturation studies have centered on

the common presumption that "ethnic minorities should have impaired health either due to the inferiority of their cultures, or to the distress of intercultural contact, or to the distress of acculturative change" (Rudmin, 2009, p. 107). As a result, acculturation has often been studied together with stress and health issues (Rudmin, 2009). Moreover, acculturation researchers have focused on the acculturation of minority groups, not majority groups, implying that acculturation only concerns minority people, that their attitudes determine degrees of acculturation to a large extent, and that the cultures of dominant people are "somehow monolithic, immutable, and without acculturative origins" (Rudmin, 2003, p. 6).

When sojourners move to a new intercultural location, they go through some sort of an adaptive process, and that is when acculturation takes place. Rudmin (2009) defined acculturation as "a cultural learning process" (p. 110), and urged acculturation researchers to separate acculturation from stress and health issues. However, defining acculturation has been very challenging given that it is related to another difficult concept to define, culture. What is culture? We tend to associate race, ethnicity, nationality, age, gender, social class, religion, and so on with the notion of culture. This way of defining culture seems to imply that we can learn cultural rules and categories in a prescribed way. However, in the field of social sciences, the notion of culture has recently shifted to a more dynamic one (Fontaine, 2006). Culture is considered to be dynamic, active, fluid, living, and constantly evolving, a "shared way of looking at the world" (Fontaine, 2006, p. 41). What we experience in our everyday lives is constantly changing, and we have to find new ways to adapt to new changes in surrounding environments. Furthermore, the fact that acculturation can happen both in the individual and the supra-individual levels

has made it even more difficult for researchers to reach a common definition of acculturation (Rudmin, 2009).

In the area of psychological acculturation, researchers created various theories in the 1900's and proposed typologies with different labels (Rudmin, 2003). Among those acculturation researchers, John W. Berry and his associates (Berry, 1990; Berry, Kim, Power, Young, & Bujaki, 1989) have made a major contribution to the conceptualization of acculturation (Ward, 1999; Ward & Kennedy, 1994). Following a distinction made by Graves (1967) between acculturation as a collective or group phenomenon (in terms of observable events and their regularities) and psychological acculturation (in terms of beliefs, attitudes, and values), Berry argued (1997, p. 7) that acculturation is "a change in the *psychology* [emphasis in original] of the individual." Berry (2009) further urged researchers to examine the psychological changes that individuals experience and their adaptation outcomes in their new intercultural contexts. The current study focuses on what psychological changes sojourners undergo in new intercultural settings, that is, changes in one's acculturation attitudes or orientations.

In Berry's conceptualization of acculturation, the concept of acculturation strategies is central. Acculturation strategies are defined as "the various ways that groups and individuals seek to acculturate" (Berry, 2009, p. 366), and they are also "the combination of acculturation attitudes and behaviors" of individuals (Berry, 2009, p. 367). According to Berry (2009), there are two main dimensions of acculturation: maintenance of original cultural identity and maintenance of relations with others in a given group. By dichotomizing evaluative responses related to these two dimensions, four categories of acculturation strategies are realized: integration, separation,

assimilation, and marginalization. If sojourners value maintenance of original cultural identity and maintenance of relations with others in a group, they are thought to take an integrative position. However, those who seek maintenance of original cultural identify but are not concerned about relationships with others are considered to take a separation strategy. Those who do not care about maintaining their original cultural identity but seek relationships with others in a group belong to the assimilation category. Lastly, those who do not intend to maintain their original cultural identity and do not seek intergroup relationships are marginalized. Berry (2009) claims that not only are these two acculturative dimensions empirically and conceptually demonstrated as independent dimensions, but also that the resulting four categories of acculturation strategies are commonly used for assessing sojourners' acculturation strategies in acculturation research.

It is also important to note that the extent to which sojourners adapt to a new intercultural context psychologically and socioculturally can vary depending on goals set by both individuals and the society at large (i.e., supra-individual level) (Berry, 2009). While considering the influence of the dominant group in how acculturation can occur mutually in both groups (i.e., sojourners/ immigrants, and larger societal group), another set of acculturation strategies for the supra-individual level is proposed along with the same two acculturative dimensions described above: multiculturalism, segregation, melting pot, and exclusion (Berry, 2009). First, when both individuals and the society as a whole seek integration, it is termed multiculturalism. Second, when the society forces separation on sojourners, it is called segregation. Third, when only the society seeks

assimilation, it is the melting pot. Lastly, exclusion refers to when the society forces marginalization.

Overall, acculturation researchers have commonly employed these two levels of conceptualization to make comparisons among individuals, between individuals and their groups, and between ethnocultural groups and the society surrounding the groups. In those fourfold acculturation studies (e.g., Krishnan & Berry, 1992; Sam & Berry, 1995; Schmitz, 1992; Van Oudenhoven, Prins, & Buunk, 1998), participants in intercultural contexts responded to Likert-scale questions related to their cultural beliefs, attitudes, practices, life satisfaction, and distress. The results tend to indicate that integration is the most adaptive and preferred for successful acculturation. As Berry (1997) explained:

> Acculturation strategies have been shown to have substantial relationships with positive adaptation: integration is usually the most successful; marginalization is the least; and assimilation and separation strategies are intermediate. This pattern has been found in virtually every study, and is present for all types of acculturation groups. Why this should be so, however, is not clear. (p. 24)

At the same time, however, various researchers have critiqued this fourfold categorical model. For instance, Weinreich (2009) argued that the categorical approach is too simplistic to account for complex acculturation processes. In an acculturation study with a group of 118 Dutch migrant children, Van de Vijver, Helms-Lorenz, and Feltzer (1999) used a series of factor analyses to examine the structure of the fourfold dimensionality. They did not find support for a four-factorial model, but found rather a unifactorial solution; that is, integration items showed negative loadings, but the rest of the items showed positive loadings.

The critiques of Berry's categorical model, however, do not invalidate completely researchers' abilities to describe and explain acculturation. The possible reason that Berry's categorical model has not yielded convincing results is that the type of the scales that participants in acculturation studies have to respond to is ipsative, in other words, one high score on one scale means low scores on all other scales. For instance, if a respondent agrees to an Integration item on a particular topic, he should not agree to any Separation, Assimilation, and Marginalization items on the same topic. Therefore, it is not surprising that Van de Vijver et al. (1999) found the results of factor analyses to be unidimensional, where integration is at one end, and assimilation, separation, and marginalization are at the other end. More precisely, in order to run multivariate methods such as factor analysis, the scales have to be independent of each other (Rudmin, 2003; Rudmin & Ahmadzadeh, 2001; Ward, 1999).

Despite the problem with the psychometric scales in Berry's model, the fourfold categorical model is based on the orthogonal nature of the relationship between home and host culture. Following this fundamental assumption and noting the shortcoming of the ipsative scales used to describe and explain acculturation, Ward (1999) has suggested that the two underlying dimensions of acculturation (i.e., maintenance of original cultural identity, and maintenance of relations with others in a host group) are better predictors of cross-cultural outcomes than the categorical approach. The former is referred to as host national identification, and the latter is referred to as co-national identification in this study.

In terms of these two dimensions of acculturation, acculturation researchers have explored how one's cultural identification is related to acculturation experiences. As for

host national identification, those who are high on host national identification tend to have fewer sociocultural difficulties in new intercultural settings (Ward & Kennedy, 1994; Ward & Rana-Deuba, 1999), and having fewer sociocultural difficulties leads to better psychological adjustments (Playford & Safdar, 2007). In respect to co-national identification, those who have higher degrees of co-national identification tend to have lower levels of psychological depression (Ward & Kennedy, 1994; Ward & Rana-Deuba, 1999). Co-national identification is associated with better psychological adjustments but not with fewer sociocultural difficulties (Playford & Safdar, 2007).

Perceived Difficulties

Successful adaptation to a new higher education setting can be difficult among any young adults transitioning from high schools to universities, or from workplace to universities, because they need to face many challenges in their personal and academic lives. In addition to these common challenges, international students need to deal with challenges related to cultural transition (Brisset, Safdar, Lewis, & Sabatier, 2010). Considerable numbers of international students have reported difficulties in adapting to a new environment, suffering from many kinds of problems related to their families, friends, school life, and school work (Furnham & Bochner, 1986). For instance, in school contexts, international students experience different degrees of stress due to performance expectations, system adjustment, and test-taking anxiety (Chen, 1999). Moreover, international students also experience a variety of difficulties associated with insufficient linguistic skills (Aubrey, 1991; Chen, 1999), prejudice and discrimination (Chen, 1999), homesickness and loneliness (Pedersen, Neighbors, Larimer, & Lee, 2011),

identity conflicts (Furnham & Bochner, 1986), and sociocultural adaptation (Ward & Kennedy, 1993).

Doi (2009) has also identified various difficulties that ESL students face while studying abroad. This qualitative study identified types of difficulties and social support resources that study abroad ESL students had while studying abroad in the United States. Through two individual interviews with one ESL student as well as one focus group with four ESL students, Doi found that these ESL students have a variety of difficulties related to communication and stress due to low proficiency in English, academic tasks and expectations, accommodation, culture shock, general health, finances, immigration visa status, child care, relationships with others, etc. These difficulties could possibly challenge international students' efforts to succeed in their study abroad environments. On the other hand, there are also students who appear to be able to handle the adjustment to the new environment and complete academic tasks given without getting into undesirable situations. It appears that the availability of social support contributes to whether or not international students manage to cope with difficulties they face successfully while studying abroad (e.g., Doi, 2009; Gill, 2007; Ward et al., 2001), which eventually leads to different levels of acculturation in a new cultural environment.

Social Support

How can international students cope with a variety of difficulties while completing necessary academic tasks and everyday chores in new intercultural environments? Since the process of intercultural contact and acculturation can be examined by multidisciplinary approaches, the field of health studies can offer insights on how social support can help those in intercultural contexts, not limited to sojourners,

adapt to a new environment. According to Cohen (2004), social support is defined as "a social network's provision of psychological and material resources intended to benefit an individual's ability to cope with stress" (p. 676). Social support can include the following three types: (a) instrumental, (b) informational, and (c) emotional.

Instrumental support refers to the provision of material aids such as financial assistance or help with daily tasks. Informational support involves the provision of relevant information intended to help individuals deal with difficulties they face, usually in the form of advice or guidance. Emotional support refers to the expression of empathy, caring, reassurance, and trust. It further allows individuals to express and vent their emotions. Therefore, it can be considered that social sup ort plays a crucial role in buffering stress, and that social support is an important predictor in psychological adaptation while transitioning cross-culturally (Brisset et al., 2010; Ward & Rana-Deuba, 2000). Moreover, these social support networks are very dynamic in nature (Roberts & Plakhotinik, 2009). They can also coordinate critical task interdependencies and overcome the dilemma of cooperation and collective action vs. individual action (Gargiulo & Benassi, 2000), enhancing individual and organizational performance through information exchange and access to knowledge and resources (Smith, 2009).

Social support for college students. When students start their college lives, there are many challenges associated with changes that they have to go through. Challenges include moving away from home, living alone or sharing the living space with non-family members, completing academic tasks for their college classes, getting used to and performing up to performance expectations by their instructors, balancing studies and work, having to be more responsible and independent than before, getting to know new

people, making friends, getting around a new campus, and so on. There is no doubt that these challenges are closely linked to emotional, social, and academic adjustments on students' parts. Dealing with these challenges can be daunting for any students who are starting their studies in higher education regardless of their status, either domestic or international.

As the retention of students in higher education has been a major concern to administrators and mental health professionals (Gerdes & Mallinchrodt, 1994), research on college student attrition has often focused on social integration among students in the freshman year of college (e.g., Christie & Dinham, 1991; Gerdes & Mallinchrodt, 1994). Those studies on college student attrition point out that whether or not students can commit themselves to attaining a degree relies on their abilities to integrate themselves into "the social and academic systems of their college through participation in extracurricular activities, interactions with other students, and interactions with faculty" (Christie & Dinham, 1991). In other words, those with abilities to integrate themselves with others are likely to persist in college while those without tend to withdraw from their college life.

In the survey study targeting both local and international first year university students in Australia, Ramsay, Jones, and Barker (2006) found that, regardless of their students' status, (i.e., either local or international), they would like to get more support than they currently do, and that well-adjusted students reported higher levels of social companionship support than the less adjusted group. In addition, it has been found that international students would like to receive more emotional, instrumental, and informational support during the first year of studying abroad than non-international

students, which can be important for smooth adjustments to higher education in a foreign country.

During the emotionally overwhelming process of transitioning to a new educational setting, students are often disconnected from their previous social support networks, which they have built and been accustomed to in their home setting. However, they have to seek social support sources from scratch, or from some existing networks with other students, if available. It is not hard to imagine that this task of building social support networks can be even more difficult for international students who were born and raised in different countries with different cultural, social, and linguistic backgrounds from other students.

Because of high interest in understanding the transitional process, which is highly likely to be stressful, the role of social support among students in higher education settings has often been studied together with the psychological well-being of students (e.g., Allgöwer, Wardle, & Steptoe, 2001; Chao, 2012; Chirkov, Safdar, Guzman, & Playford, 2008; Dao, Lee, & Chang, 2007; Hayes & Lin, 1994; Hefner & Eisenberg, 2009; Jou & Fukuda, 1996; Lee, Koeske, & Sales, 2004; Mallinckrodt & Leong, 1992; Miville & Constantine, 2006; O'Connor, Cobb, & O'Connor, 2003; Wohlgemuth & Betz, 1991). Being separated from their existing social support resources, such as parents, other family members, childhood friends, and school friends from their previous schools, can naturally stress new college students dealing with situations where they have to figure things out on their own. Since this study focuses on social support that international ESL students use while studying abroad, I will discuss the role of social support for domestic and international college students.

Social support for domestic students. With respect to domestic students' transitioning to college, researchers examined the role of social support and its relation with psychological well-being (e.g., Allgöwer et al., 2001; Chao, 2012; Hefner & Eisenberg, 2009; Miville & Constanine, 2006; Neely, Schallert, Mohammed, Roberts, & Chen, 2009; Wohlgemuth & Betz, 1991). For example, college students with higher quality support from friends are associated with a lower likelihood of depression, but those with low quality social support are more likely to express mental problems (Hefner & Eisenberg, 2009). In a study of perceived stress and social support with 459 college students in the United States, Chao (2012) has found that social support plays a role as a buffer from stress, and further argues that when students experience stress in their life, those "who have high social support may have a buffer to moderate the association between stress and well-being, and those with low social support would lack the buffer against stress" (pp. 6-7). Similarly, the more satisfied undergraduate students are with social support, the less perceived stress they have (Wohlgemuth & Betz, 1991). This, in turn, leads to the less frequent use of a health specialist than by those who are not satisfied with social support (Miville & Constanine, 2006). Moreover, those who have high perceived need for social support tend to have lower well-being (Neely et al., 2009). While having to becoming responsible and independent students in college life, it is also important for college students to maintain their health so that they can fully participate in academic and social activities, and complete necessary tasks in a timely manner. However, those with low social support are not only likely to have lower well-being, but also likely to engage in a variety of less healthy actions, such as sedentary behavior and

irregular sleep hours (Allgöwer et al., 2001), which could have more immediate impacts on their abilities to meet new demands and challenges in their college life.

The previous research has demonstrated that social support has a close relationship with college students' psychological well-being (e.g., Chao, 2012; Miville & Constanine, 2006; Neely et al., 2009; Wohlgemuth & Betz, 1991), but there are also other factors that appear to influence the role of social support for college students. First, gender seems to come into play in terms of from whom college students tend to receive social support. In a study with 177 undergraduate students in England and Scotland, O'Connor et al. (2003) found that female students tend to rely on social support from family, friends, and significant others more than male students do. Particularly for female students, having social support from friends and significant others help them maintain their psychological well-being.

Second, the student's age or maturity can influence what sources of social support college students utilize. Lundberg, Mclntire, and Creasman (2008) investigated types of social support that non-traditional adult undergraduate students use. On campus these days, there are not only traditional college students who have just graduated from high school, but also non-traditional adult college students who have decided to return to school in order to pursue their academic goals. Needless to say, those traditional college students and non-traditional college students have different life experiences. Many non-traditional adult students are simultaneously engaged in multiple roles such as being a spouse, a significant other, a parent, a caretaker for his/her elderly parent, and a worker, etc. Accordingly, social support comes from family, children, friends, co-workers, and employers. Social support from other college students is primarily used for academically

related tasks on campus. Among many sources of support identified, non-traditional students tend to rely on social support from partners (i.e., spouse, significant other) for emotional and instrumental support.

Social support for international students. How does social support help international college students deal with challenges associated with transitioning to a new academic setting in a foreign country? Generally, the findings about the role of social support for international college students are in line with what is found for domestic college students - a loss of social support influences the psychological well-being of international students (Hayes & Lin, 1994; Mallinckrodt & Leong, 1992), and the presence of social support moderates and buffers the effect of stress on mental health symptoms (Lee et al., 2004).

For instance, a perception of limited social support predicts more depression in Taiwanese graduate students studying in the United States (Dao et al., 2007). Chinese students studying in Japan have exhibited more mental and physical health issues when they were dissatisfied with social support available to them (Jou & Fukuda, 1996). Similarly, when international students studying in Canadian universities receive social support, they are more likely to have better psychological well-being, less mental health symptoms, and less difficulties in their everyday life (Chirkov et al., 2008). Moreover, their study has indicated that those with social support tend to be more motivated to learn about the host culture and more open to accept the new culture (Chirkov et al., 2008). Furthermore, among Korean graduate-level international students studying in the United States, social support moderates and buffers the effect of psychological stress on mental health symptoms. Those with acculturative stress have exhibited more mental health

symptoms than those without acculturative stress, and those with acculturative stress but with more social support have also had fewer mental health symptoms than those with less social support. The buffering effect of social support is particularly present when international students are highly acculturated in terms of interpersonal associations with host nationals as well as language use (Lee et al., 2004).

While these previous studies agree on the positive role of social support on international students' psychological well-being, it is important to note that the psychological well-being of international students could be partly due to a lack of language proficiency in the language spoken in the new location. Having to adjust to the loss of social support that students had in the home country can complicate their ability to communicate in the host culture (Hayes & Lin, 1994; Lee et al., 2004; Poyrazli, Kavanaugh, Baker, & Al-Timimi, 2004).

Furthermore, not being proficient in the host language spoken may encourage international students to form their own cultural subgroups, in which they can establish new primary relations (Hayes & Lin, 1994). These new relations in the cultural subgroups can replace those they had in their home countries, and help them to develop a sense of belonging and a place to share their traditional values and customs rooted in their countries of origin. While these cultural subgroups can become a new home-base for newly arrived international students, this could lead them to socially isolate themselves further (Hayes & Lin, 1994).

This finding about forming a cultural subgroup and possibly not fully integrating into the new college setting adds a valuable insight into the discrepancy in previous findings as to whether co-national social support is beneficial for their adjustments while

studying abroad (see Pedersen et al., 2011; Ward & Kennedy, 1993; Ward & Kennedy, 1994; Ward & Rana-Deuba, 2000). Ward and her colleagues (1993, 1994, 2000) suggest that having co-national support is related to less psychological adjustment problems such as depression and homesickness because international students may receive social support and familiarity in the new setting. However, Pedersen et al. (2011) argued that co-national social support is not necessarily helpful for their acculturation based on their finding of a positive correlation between social interaction with co-nationals and homesickness, or feeling out of place. Pedersen et al. (2011) cautiously acknowledged that more research is needed about this factor in order to "determine if spending time with other co-nationals is either a product of adjustment difficulties, or a precursor to potential difficulties and negative health reactions" (p. 887).

There are other studies that have looked into how host-national and co-national social support is related to international students' adjustment in academic contexts (see Chapdelaine & Alexitch, 2004; Chirkov et al., 2008; Hendrickson, Rosen, & Aune, 2011; Poyrazli et al., 2004). First, in a study of 141 international students in the United States, Poyrazli et al. (2004) have found that those who primarily socialize with non-Americans experience more acculturative stress, and that those who interact equally with American and non-American groups have more social support and less acculturative stress than those who primarily socialize with non-American. These findings have led them to claim that host-national social support is helpful for international students to achieve better adjustment outcomes. However, these findings need to be taken into consideration with a little caution because non-Americans can include those who share the same country of origin as well as fellow international students who are from different countries of origin.

Another interesting study on the role of social support for international students, which provides relevant implications to this study, is Hendrickson et al. (2011). This study focused on 84 international students at the University of Hawai‘i at Mānoa, which is the same geographical location for this study. Participants included undergraduate and graduate students from 32 different countries. It is interesting to note that participants had a higher ratio of host nationals in their friendship networks than co-nationals, and that those with a higher ratio of host nationals in their networks claimed to feel more content and satisfied and experience less homesickness.

As non-traditional college students have different sources of social support from traditional students and tend to rely on social support from a partner such as a spouse and a significant other (Lundberg et al., 2008), the marital status of international students also seems to positively relate to their adjustment (Chirkov et al., 2008). It may be the case that those who are married or have a significant other tend to rely on partner support and miss opportunities for interactions with host-nationals. Especially, those who have children may want to retain subcultural group networks so that their children can still be immersed in their cultural and traditional values and customs because they intend to return to their home countries eventually once their initial purposes of studying abroad are achieved.

Moreover, based on a study with 156 male graduate international students in Canada, Chapdelaine and Alexitch (2004) found that those who come to the host country with their partners and/children are less likely to have interactions with host nationals because graduate students face more academic demands and may have a limited amount

of time for socializing with host nationals after spending time with their families and dealing with additional family-related demands.

These studies that have examined the relationship between co-national social support and acculturation among international students offer interesting findings for the current study since participants in this study are mixed in terms of nationalities, educational and professional backgrounds, age, and marital status. Moreover, it is still unclear how these influential factors separately identified in previous studies (i.e., general social support, co-national social support, and perceived difficulties) can account for degrees of acculturation, in terms of one's cultural identification, among sojourners in a new environment.

Methodological Characteristics in Previous Studies

This section describes some methodological characteristics in the previous studies focusing on relationships among social support, acculturation, and/or adjustment outcomes. Among 16 published empirical studies (Brisset et al., 2010; Chirkov et al., 2008; Dao et al., 2007; Jou & Fukuda, 1996; Lee et al., 2004; Milville & Constantine, 2006; Pedersen et al., 2011; Playford & Safdar, 2007; Ramsay et al., 2006; Rudmin & Ahmadzadeh, 2001; Van de Vijver et al., 1999; Ward & Kennedy, 1993; Ward and Kennedy, 1994; Ward & Rana-Deuba, 1999; Ward & Rana-Deuba, 2000; Wohlgemuth & Betz, 1991) that I have cited in the literature review above, there are several methodological characteristics that are helpful to take into consideration in designing the present study.

First of all, the overall mean length of residence among participants was about 2 years. Since these studies investigated acculturation and/or adjustment outcomes in new

intercultural settings, researchers seemed to look for participants who had been in the settings for a few years or more. The shortest mean length of residence was reported in Ward and Kennedy (1993) that examined a group of 178 secondary school students in New Zealand, and it was 10.88 weeks.

Secondly, all these studies utilized questionnaires involving self-reported Likert scale items. Since researchers used questionnaires to collect data from their participants, these studies had a relatively large sample size. The total number of participants ranged from 72 in Brisset et al. (2010) and in Chirkov et al. (2008) to 248 in Pedersen et al. (2011). The average number of participants in these 16 studies was 133.

Thirdly, data collected through these items are coded by numbers, and subsequent analyses usually involve various statistical analyses and the results tend to be quantitative in nature. Frequently performed statistical analyses were simple correlation, t-test, analysis of variance (ANOVA), multiple regression, multivariate multiple regression, factor analysis, path analysis, and structural equation modeling (SEM). There appear to be some trends in kinds of statistical analyses commonly used to study relationships among social support, acculturation, and/or adjustment outcomes, based on what researchers were investigating and when studies were conducted. Researchers who examined differences between groups used t-test, and/or ANOVA, such as in Ward and Rana-Deuba (1999) for examining differences in terms of acculturation strategy and cultural identification. In addition, since some studies examined relationships among target variables, researchers performed correlation and multiple regression analyses, for instance, in Lee et al. (2004). From the 2000's, more advanced statistical analyses seemed to be preferred by researchers. For example, path analysis in Brisset et al. (2010)

and Playford and Safdar (2007), and factor analysis in Pedersen et al. (2011) and in van de Vijver et al. (1999). This is not surprising given the fact that there have been more powerful statistical software programs available in recent years such as SPSS AMOS and MPlus.

Overall, studies that examined social support, acculturation, and/or adjustment outcomes, often seemed to utilize questionnaires, collect data from a large number of participants, and analyze the data by using powerful statistical software programs. However, there are some advantages and disadvantages to be aware of in the use of questionnaires for data collection. As for advantages, researchers can collect information from large samples. Moreover, it can be more convenient and less time consuming for researchers than interviews because they do not have to meet with each respondent individually while respondents fill out their answers. This point that respondents do not have to meet with researchers for data collection also makes it convenient for respondents to participate in research studies, because they can choose when to respond to questionnaires at their convenience, unless they are asked to respond to questionnaires at a time specified by researchers.

On the other hand, there are also disadvantages regarding the use of questionnaires. Firstly, the response rate can turn out to be low because it is up to respondents to decide whether or not, and when they respond to questionnaires. Therefore, if researchers would like to gather data from a large number of respondents, it is necessary for them to distribute a much larger number of questionnaires than those that they actually need. For instance, the response rate in Rudmin and Ahmadzadeh (2001) was 32% (i.e., they received 80 back out of 250 questionnaires sent out). Similarly, the

response rate was 28% (i.e., 29 out of 102) in Lee et al. (2004). It is also helpful for researchers to provide respondents with options for how to respond to the questionnaires in order to ensure a high response rate (e.g., either sending it back by mail or completing it on the Internet). Although the response rate was not reported, the online questionnaire was used in Chirkov et al. (2008), and a total of 300 people (i.e., 228 in Time 1 and 72 in Time 2) responded to the online questionnaire.

Moreover, there is another potential disadvantage when self-reported Likert-scale items are used in questionnaires. Likert-scale items include anchors along scales, and respondents may not be sure about what each anchor means, and there is also a possibility that respondents weigh anchors differently. Therefore, in order to avoid the undesirable situation where differences in results come from inconsistencies in how the items are understood, researchers seemed to prefer certain instruments involving Likert-scale items with high reliability, such as the Acculturation Index developed by Ward and Kennedy (1994) and the Sociocultural Adaptation Scales developed by Ward and Kennedy (1999). Brisset et al. (2010), Playford and Safdar (2007), and Ward and Rana-Deuba (1999, 2000) used both of the instruments in their studies.

I have discussed some methodological characteristics in the previous studies focusing on relationships among social support, acculturation, and/or adjustment outcomes. The information on how other researchers attempted to design their studies as well as advantages and disadvantages of self-reported Likert-scale questionnaires have informed the design of this study in respect to participant selection, sample size, data collection instrument and procedure, analysis, and statistical analysis software.

Research Questions

Given these findings in the previous literature, this study will examine the following research questions.

1. What difficulties do study abroad ESL students face in (a) their school lives, and (b) their personal lives?
2. What types of social support do study abroad ESL students utilize to deal with difficulties in (a) their school lives, and (b) their personal lives?
3. How are perceived difficulties and sources of social support related to acculturation in terms of cultural identification for study abroad ESL students?

Whereas the first two research questions are descriptive, the third one is explanatory in nature. In other words, this research question aims to test and explain relationships among variables of my interests.

In respect to Research Question 3 on relationships among perceived difficulties, social support, and acculturation in terms of cultural identification, Figure 2.1 illustrates relationships among the three constructs that I am interested in investigating based on the conceptual framework described in Introduction and the information found in the existing literature. I will run structural equation modeling (SEM) analyses with Mplus to examine the relationships. Sources of social support are separately identified as co-national social support (i.e., support from those who share the same country of origin) and general social support (i.e., support from those who are from different countries of origin, including host nationals). As for degrees of acculturation, I have two types of cultural identification, that is, co-national identification and host-national identification. Moreover, Figure 2.1 indicates

hypothesized directions (i.e., either plus or minus) above each path between the constructs of my interest. However, these initial hypotheses for Research Question 3 will be revisited after examining the validity of the survey scales used to collect data from the participants, and will be revised accordingly.

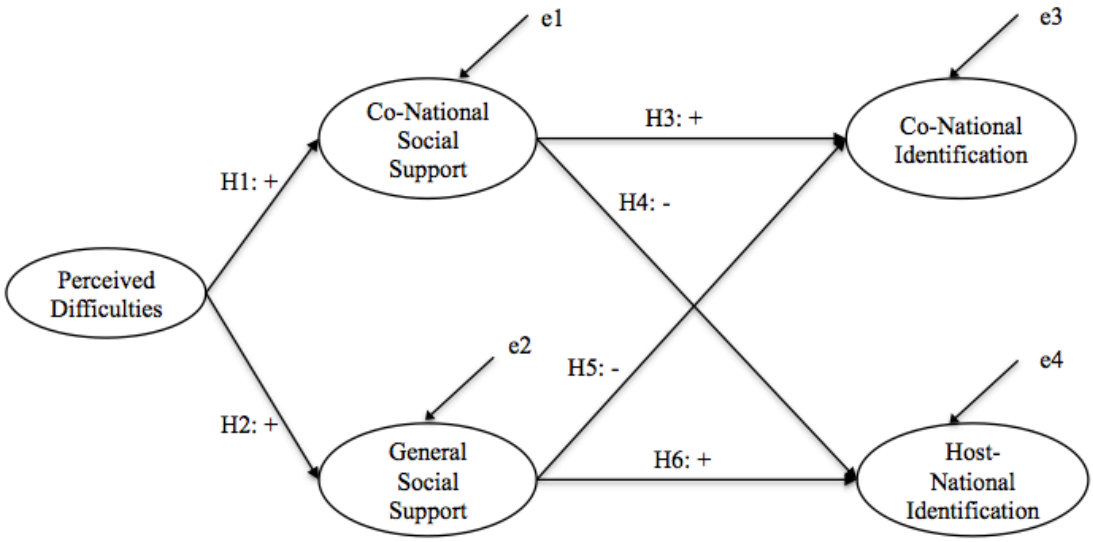

Figure 2.1 Hypothesized paths of Perceived Difficulties, Social Support, and Degrees of Acculturation

Hypothesis 1: Degrees of Perceived Difficulties that students experience positively affect the amount of Co-National Social Support that they use.

Hypothesis 2: Degrees of Perceived Difficulties that students experience positively affect the amount of General Social Support that they use.

Hypothesis 3: The amount of Co-National Social Support that students use positively affects degrees of their Co-National Identification.

Hypothesis 4: The amount of Co-National Social Support that students use negatively affects degrees of their Host-National Identification.

Hypothesis 5: The amount of General Social Support that students use negatively affects degrees of their Co-National Identification.

Hypothesis 6: The amount of General Social Support that students use positively affects degrees of their Host-National Identification.

CHAPTER 3: RESEARCH METHODS

This study employed quantitative methods to address the research questions. The research design was a non-experimental correlational design utilizing survey methodology, and included a set of three scales. The purposes of the design were (a) to identify difficulties and social support resources, and (b) to examine relationships among perceived difficulties, social support, and degrees of acculturation. The following sections will describe the location for this study, participants, instruments, pilot study, procedure, data analysis, sources of validity evidence, and limitations of the study. In particular, I will give special attention to how each survey scale was validated as a part of data analysis.

Location

The location of the study was the New Intensive Courses in English (NICE) program at the University of Hawai‘i at Mānoa, which is the flagship campus among the 10 University of Hawai‘i campuses on the islands of Hawai‘i. This is an ESL program as a part of Outreach College, and offers four 10-week terms in a year. Ten-week terms start in each January, April, July and October. This program is accredited by the Commission on English Language Program Accreditation (CEA) through 2021. It was the first intensive English language program on the island of Oahu to receive the CEA accreditation in 2006. As most accredited English language programs prepare students to enter an American university, the mission of the program is to equip speakers of other languages with English and cultural skills necessary for success not only in academic, but also in professional and social contexts. To fully serve students with different goals, the program offers a full-time program with three tracks, each of which emphasizes oral

communication and cultural competence. These three tracks are Academic, Business, and General Communication (New Intensive Courses in English, 2015). These three tracks of the intensive English language curriculum attract a variety of students who have a wide range of goals and needs in learning English while studying abroad as well as different academic and professional backgrounds in their home countries.

Moreover, the fact that it is a CEA accredited language program indicates that the NICE program has gone through a process of ensuring that the program (including the mission, its curriculum, student services, finances, facilities, and administration) meets a standard of excellence, as required by CEA, and that the program has also made improvements to meet the CEA's standards. Given the unique composite of students who come and study at the program for a variety of needs, and the rigorous process that the program had gone through to ensure the quality of services offered to students, I believe that it is a reasonable and interesting site to be focused on for this study. Furthermore, in December 2010, President Obama signed a bill regarding Intensive English Program (IEP) accreditation into law called the Accreditation of English Language Training Programs Act (Accreditation Act), which requires IEPs to be accredited by a recognized national or regional accrediting body in order to issue Form I-20s (U.S. Immigration and Customs Enforcement, 2014). A Form I-20, "Certificate of Eligibility of Nonimmigrant Student Status," is required for prospective foreign students to gain their student immigration visas once their admission applications are accepted by hosting institutions and schools (U.S. Department of Homeland Security, 2013). I believe that this makes it interesting and meaningful for me to focus on a CEA accredited language program such as the NICE program for the purpose of the study because other accredited IEPs have to

go through a similar process to ensure the quality of services as the NICE program has. Moreover, findings from this study may be able to give other IEPs' administrators and teachers a glimpse about the life of ESL students who come to their programs to study abroad.

On the practical side, I have worked for the program as a full time teacher since October 2005. I expected that I would have full access to the location. Due to the status I have in the program, I am aware that there might be potential issues and implications that could influence the process of data collection and threaten findings of the study. I will discuss them further in a later section.

ESL students at the program were recruited for this study. The majority of students are from Japan and South Korea. Students have also come from the People's Republic of China (China), the Republic of China (Taiwan), Indonesia, Vietnam, Thailand, Cambodia, and some European and South American countries in the recent years. I will describe the details with respect to the participants later in this chapter.

Instruments

The survey included several sections for data collection (see Appendix A). First, each set of the survey instruments came with a unique ID code for each individual student in the program, and those ID codes helped me connect their responses to the survey and their language proficiency levels. Second, a demographic section asked students to provide their personal information such as gender, age, nationality, native language, marital status, number of terms enrolled in the program, length of residence in the host country (the United States), length of learning English, and the highest level of education completed. Third, three different survey scales followed to collect necessary

information to answer my research questions: the Perceived Difficulties scale, the Social Support scale, and the Acculturation Index. I developed the first two scales, and adapted the last one from published acculturation studies. I would like to discuss how and why I developed those two scales and how I adapted the Acculturation Index.

Background. First, I would like to describe why and how I came to make a decision for making my own scales to measure perceived difficulties and social support. I carried out a small-scale qualitative study (Doi, 2009) as a course project for a qualitative research methods class in my graduate studies. I was primarily interested in finding out what challenges ESL students had while studying abroad and how they overcame difficulties. To examine this question, I interviewed two international ESL students individually and conducted a focus group with four ESL students. While talking to and listening to the participants, I noticed that they had a variety of difficulties to deal with, and that the use of social support seemed to be related to their language proficiency levels, their living arrangements (e.g., living with relatives who shared the same first language, living with a roommate who did not speak the same first language, living in a dormitory on the university campus, living with own children), and involvement in cultural or sports activities in the community. I became more interested in finding out the role of social support that ESL students could receive from those who speak the target language (English) as well as those who share the same first language since many international ESL students seemed to be experiencing difficulties due to a lack of proficiency in English required to complete necessary tasks in their lives. The types of difficulties participants faced as well as their use of social support varied widely. One female participant whose low English proficiency led to difficulties in her school life also

found it difficult to communicate with her children's teachers and other parents. She often relied on her English speaking friends in the local community for help. Another participant found it very challenging to complete necessary tasks and assignments for her classes at a community college. She lived with her boyfriend from the same home country, and he also was taking intensive ESL courses, so could not help with her academic work. She sought support resources through the community college (e.g., tutors, lab monitors, teaching assistants), and actively utilized those resources to deal with difficulties she encountered.

Existing scales in the literature. My initial literature review on perceived difficulties among study abroad students and social support resources turned out to be somewhat general. For instance, I found that international students tended to have difficulties related to cultural transition (Brisset et al., 2010), while in school setting, they had problems with performance expectations, system adjustment, and test-taking anxiety (Chen, 1999). They had varying levels of difficulties due to low language proficiency in a target language spoken in a host community (Aubrey, 1991; Chen, 1999), prejudice and discrimination (Chen, 1999), homesickness and loneliness (Pedersen et al., 2011), identity conflict (Furnham & Bochner, 1986), and sociocultural adaptation (Ward & Kennedy, 1993). As for social support resources that international students use, I found that international students needed social support (Larrotta, 2009), that they could solve social and academic problems with social support (Kitaoka, 2008), and that social support facilitated maintaining students' overall physical and psychological health conditions (e.g., Jou & Fukuda, 1996; Lee et al., 2004). Moreover, social support may come from a variety of sources, including family members, friends, and acquaintances.

In the process of my literature search, I found scales already used for other empirical studies. Ward and Kennedy (1994) used the Social Situations Questionnaire (SSQ) to assess the amount of difficulty participants experienced in a variety of routine social encounters. Participants rated the amount of difficulty they experienced on a 5-point scales ranging from *no difficulty* to *extreme difficulty*. Items included in this questionnaire were, for example, "*going on public transport*," "*going to a small private party with English people*," "*people standing or sitting very close to you*," and "*seeing a doctor.*" The SSQ items do not address routine activities that international students engage in their school lives, and do not cover sources of concerns and difficulties that were identified in Doi (2009).

Second, I identified several scales to measure constructs related to social support in the literature, and will describe two scales in detail here, for which I was able to take a look at the actual items included. The Index of Sojourner Social Support (Ward et al., 2001) has 18 items and highlights the availability of social support. Participants rate the availability of helpful behaviors from others that might make their stay in a foreign setting easier or more pleasant. One of the items is, for instance, "*listen and talk with you whenever you feel lonely or depressed*," and participants are asked to judge if they know persons who would perform the behaviors described by responding to a scale from *no one would do this* to *many would do this*. This scale can be scored as a single factor index of social support, or separate sub-scores can be calculated for the socio-economic support and the instrumental support. This scale does not look into general social support that students receive from those who speak English, and co-national social support that

students receive from those who share the same first language and are from the same country of origin.

O'Connor et al. (2003) and Chirkov et al. (2008) used the Multi-Dimensional Scale of Perceived Social Support (MSPSS). This scale assesses participants' emotional support from family, friends, and significant others. Items include "*my family really tries to help me*," and "*there is a special person who is around when I am in need*." Participants rate each statement on a scale ranging from *strongly disagree* to *strongly agree*. Like the Index of Sojourner Social Support, this scale highlights the availability of social support. I could have adapted this scale by adding items such as "*I have friends from the same home country who would help me when I want help*" in order to examine the availability of social support from co-national friends and family members. However, that would have meant to revise this original MSPSS scale rather than making a few minor changes.

After examining several existing scales, it was clear that developing my own scales would be more appropriate because of my specific interests in (a) examining what international ESL students find difficult to do in both school and personal lives, (b) understanding the role of general and co-national social support they use to deal with difficulties, and (c) the need to accommodate the English proficiency level of the target population (ESL students enrolled in an intensive ESL program). I also needed to include items that specifically address difficulties related to tasks that involve the use of English such as "*communicating with other students and teachers in English*," and "*getting feedback from teachers to improve my English ability*." In addition, acculturation studies often focused on a single ethnic group (e.g., Dao et al., 2007; Jou &

Fukuda, 1996; Lee et al., 2004; Milville & Constantine, 2006). This study included students of different ethnic and language backgrounds, and the scales had to be non-specific to a country of origin. Finally, it appeared reasonable to include information from Doi (2009) in constructing scales on perceived difficulties and social support since participants for this study would be similar to those in Doi (2009).

Designing the Perceived Difficulties and Social Support scales. Using the information obtained from Doi (2009) and the existing literature, I drafted the Perceived Difficulties scale and the Social Support scale. For both scales, I used the Likert-scale format. Participants were asked to respond in a scale from 0 (*never*) to 5 (*always*). The scales provided numerical information on perceived difficulties and social support that could be used to examine the research questions.

Previous studies also utilized questionnaires with the Likert-scale format (Brisset et al., 2010; Chirkov et al., 2008; Dao et al., 2007; Jou & Fukuda, 1996; Lee et al., 2004; Milville & Constantine, 2006; Pedersen et al., 2011; Playford & Safdar, 2007; Ramsay et al., 2006; Rudmin & Ahmadzadeh, 2001; Van de Vijver et al., 1999; Ward & Kennedy, 1993; Ward & Kennedy, 1994; Ward & Rana-Deuba, 1999; Ward & Rana-Deuba, 2000; Wohlgemuth & Betz, 1991). In creating a Likert-scale survey, one common problem is respondents' tendency to give a neutral response to questions, for example, by selecting 3 on a 5-point scale, what Brown (2001) described as "sitting on the fence" (p. 41). He recommended using an even number of options forcing respondents to select in one direction or the other. Following his recommendation, a 6-point Likert-scale survey was created. In addition, based on the findings from Doi (2009) that ESL students seemed to

find difficulties in different things and use different social support resources in schools and their personal lives, I made separate sections for these two contexts in each scale.

With respect to the perceived difficulties scale, participants responded to the question "*I worry about ___ in my school life*" or "*I worry about ___ in my personal life*" respectively. Word choice was also an important consideration in developing the questions. For example, I used the verb "*worry*" instead of "*concern*" because the meaning of the question had to be clear to participants who would be ESL learners, whose proficiency level in English could vary from very low to very high. The verb "*concern*" could be too difficult for students with lower levels of English to understand its meaning. Moreover, based on my own observations and experiences of working with students with different levels of English, slight differences in nuances implied by these two verbs would be not meaningful to them. There were 10 items for school life, and 12 items for personal life.

For the Social Support scale, participants responded to the question "*when I have difficulties in my school/personal life, I can receive help or advice from the following people*." There were 13 items for school life, and 13 items for personal life. Among the 13 items for both school and personal lives, there were 9 items for general social support, and 4 items for co-national social support. Furthermore, each section of the Perceived Difficulties scale and the Social Support scale had an open-ended question, for participants to provide any additional observations and/or experiences not addressed by the survey items.

Adapting the Acculturation Index. In order to measure degrees of acculturation among participants, I selected the Acculturation Index as a scale to be used along with the

self-developed perceived difficulties and social support scales. Originally developed by Ward and Kennedy (1994) and administered by many other studies on acculturation among sojourners (e.g., Brisset et al., 2010; Playford & Safdar, 2007; Ward & Rana-Deuba, 1999, 2000), this instrument has self-reported, 7-point Likert scales of a total of 21 cognitive and behavioral items (e.g., language, food, recreational activities, and in-group and out-group perceptions). This was used to assess two underlying dimensions of acculturation: (a) relationship to culture of origin (maintenance of original cultural identity, co-national identification), and (b) relationship to culture of contact (maintenance of relations with others in a host group, host national identification). By asking participants to consider two questions about their lifestyles in the host country with reference to the 21 items [i.e., "Are your experiences and behaviors similar to those of people from your country of origin (co-nationals)?" and "Are your experiences and behaviors similar to those in your host country (host nationals)?"], it yields two independent "similarity" scores for a range of behaviors and cognitions (ranging 0 - 126): co-national identification, and host national identification.

This Acculturation Index has demonstrated high reliability and strong predictive validity (Ward & Kennedy, 1994, p. 337), (i.e., .93 for co-national identification, .96 for host national identification, and .23 for correlation between co-national and host national identification). In other words, the studies that utilized the Acculturation Index have indicated that host national and co-national identifications are independent of each other (Ward, 1999). This instrument has been used for other acculturation studies (Tadmor, Tetlock, & Peng, 2009; Ward, 1999; Ward & Rana-Deuba, 1999).

For the purpose of the study, I added some modifications to the items in the Acculturation Index. For example, I modified "*employment activities"* to "*school activities that you participate*," because students who entered to the US with a student immigration visa are not allowed to work. I also dropped one item of "family life" since most students in the program were single and/or living away from their families.

Pilot study

Procedure. I conducted a pilot study to test the three scales in December 2012 with a group of 40 ESL students, who were enrolled in the data collection site for this study. First, I briefly explained the purpose of the study to the students, and then obtained oral consent for participation. I administered the survey scales during the last week of instruction after their teachers turned in the final grades. Out of 40 students, there were 33 Japanese, four Koreans, one Chinese, one Taiwanese, and one Thai. The language levels of the students ranged from high basic to advanced, and their ages ranged from 19 to 62 with a mean age of 28.00 (SD = 9.95). They completed the scales in class. This allowed me to observe how they were doing, and respond to their questions. Most students completed the demographic section and the three scales within 15 to 20 minutes, and some used dictionaries to check meanings of unclear vocabulary for them. Some also asked me to clarify some words' meanings. I jotted down those questions and my observations on my notebook to be used for further editing of the items. There were no major problems in the administration of the scales or the readability of the scale items.

Reliabilities. I entered responses collected from the students into an Excel spreadsheet and then further exported them to SPSS Statistical software (IBM Corporation, 2013). I examined the reliability of the scales, to ensure that the scales

measured target variables consistently. Since I administered the scales once to the participants in the pilot study, I used the internal-consistency method, which examines the consistency of the responses to items within a single form of a scale administered on a single occasion (Brown, 2001). In the Perceived Difficulties scale, reliability coefficients, Cronbach alpha, were .84 for the 10 school related items, and .67 for the 12 personal life related items. The possibly acceptable but relatively low reliability coefficient of .67 for the personal life items indicated that there could be some issues with items that could be addressed for improvement. In the Social Support scale, reliability coefficients were .84 for 18 items addressing general social support (nine items for school life, and nine for personal life), and .75 for 8 items addressing co-national social support (four for school life, and four for personal life). The reliability coefficient for general social support was acceptable. The lower reliability coefficient for co-national social support indicated that adding some more items and rewording some existing items to be more explicit could improve its reliability. When examining the reliability coefficients for the Acculturation Index, I obtained .92 for co-national identification (20 items), .91 for host-national identification (20 items), and .22 for correlation between co-national and host national identifications. This low correlation between co-national and host national identifications supported the assumption that these two dimensions were not identical.

Revising the scales. After examining the reliability of the scales and getting feedback on the scales from other instructors in the program chosen for this study as well as some professors who were familiar with my research questions, I revised some items in all the scales. For instance, in the Perceived Difficulties scale used in the pilot study,

one of the items was "*my English ability*." However, based on some comments I received from some students in person and some responses given to the open-ended question, I realized that "*my English ability*" was too vague and broad. Therefore, I rephrased and divided this item into 3 separate items, "*communicating with other students in English*," "*communicating with teachers in English*," and "*getting feedback from teachers to improve my English ability*." In addition, another item was "*my future plan*." This was changed to "*working toward my future plans*" in both the school and personal life sections, and expanded to a new item "*getting a job after I return to my country*" in the personal life section. Moreover, it became clear that "child care" in the personal life section was actually relevant to less than a handful of the students in the pilot study. Thus, I decided to drop the item from the Perceived Difficulties scale.

For the Social Support scale, I added a few more items and articulated confusing items more explicitly. "*Host family or roommates*" that was initially considered to be a part of general social support, was rephrased into two separate items, "*host family or roommates who speak my native language*" for co-national social support and "*host family or roommates who speak different native languages*." Moreover, some students appeared to be confused about the question on the social support scale, "*when I have difficulties in my school/personal life, I can receive help or advice from the following people*." It was possible that some students might have understood this question as the availability of social support, or perceived social support, that they could use, rather than the actual use of social support. By examining the raw dataset of responses, I identified a few students who actually had given the same rating, for example, 5 (*always*), to all the items. In order to avoid this sort of confusion among participants, I rephrased the

question to "*when I have difficulties in my school/personal life, I receive help or advice from the following people*" so that it should be clear to the participants that their responses to the items in the Social Support scale would be about *received* social support, not *perceived* social support.

The last scale, Acculturation Index, was also modified to help students understand each item on the scale more easily because words used in some items were not easy to grasp, especially for the target group of participants for this study. For instance, I changed "*pace of life"* to "*how you pace your daily activities*," "*recreational activities*" to "*activities that you do in free time*," and "*political ideology"* to "*what political ideas you have*." In addition, I changed the original 7-point Likert-scale to a 6-point scale so that survey scales used in this study would be consistent across the different sections.

For the current study, the revised set of the three survey scales was administered on three occasions. The Perceived Difficulties (PD) scales included a 6-point Likert scale with a total of 26 items: 13 items for difficulties in school life, and 13 for those in personal life. The Social Support (SS) scales had a total of 30 items: 15 items for social support in school (nine for general social support, and six for co-national social support), and 15 for social support in personal life (nine for general social support, and six for co-national social support). The Acculturation Index included a total of 40 items: 20 items for co-national identification, and 20 for host-national identification.

Procedure

Data collection. Before starting a series of data collections, I obtained the University of Hawai‘i (UH) Human Studies Program approval of this study as exempt

from federal regulations pertaining to the protection of human research participants in August 2013. (See Appendix B for the letter of Exempt Approval.)

Secondly, I received permission from the Program Director to collect necessary information for this study on three separate occasions in order to maximize the number of students who could participate in the study. I explained to her the procedure as well as possible implications from the study while answering her questions regarding the study. After receiving her approval for this study, I prepared a package of materials for each teacher who was teaching an Integrated Skills (IS) class as well as the Academic Coordinator of the program, who was in charge of overseeing the curriculum. Each package included (a) the instruction sheet for teachers, (b) copies of an oral consent form for the study, (c) a list of students with ID codes, and (d) teacher and students' copies of the revised survey scales with ID codes on, (e) some chocolate candies for students and each teacher as a token of appreciation. (See Appendices C for the instruction sheet for teachers, and D for the oral consent form for the study.) The teacher instruction sheet provided a brief description of the purpose and how I would like teachers to administer the survey scales in their classes. During one of the routine faculty meetings during the terms when I was going to collect data, I was given some time to distribute the packages for data collection to the teachers and answer questions that teachers had about the purpose as well as the procedures for data collection. Overall, teachers were positive and helpful in setting some time aside from their instructional time for administering the survey scales, and assisting students with language support for those who could not understand some words used in the survey scales.

There were a few things that needed to be emphasized to teachers before administering the survey scales. First, I had to clarify that administering the scales would have to be done during the last few days of the instruction in each term after the final grades were turned in since I needed to let teachers and students know that their participation or non-participation in the study would not affect their final grades in the program. Second, I used unique ID codes for all the students in the program so that I could connect survey responses with their English proficiency levels based on the Oral Production placement test in the program. At the beginning of each term, new students took the in-house placement test, and based on the test results, they were placed in five levels (Basic, High Basic, Intermediate, High Intermediate, and Advanced). I needed to explain that I would be using ID codes to link the placement test information and survey responses so that only I could identify which piece of information belonged to which participants once data were collected. At the same time, I asked teachers to distribute copies of the survey scales to students with matching ID codes to those on the list of students with ID codes. Third, I expected most of the students to complete the survey scales within 15 to 20 minutes. However, I told teachers that it would be all right for students to take their survey sheets home with them if they needed and/or wanted more time. I decided to allow this arrangement in order for students to fully respond to the survey questions despite their limited proficiency in English.

Data collection was done in nine classes in December 2013, four classes in March 2014, and eight classes in June 2014. On each round of data collection, teachers followed the same procedure to administer the survey scales in their classes. First, they briefly explained to students what they were asked to do by reading oral consent for this study.

Those who agreed to participate in the study received a copy of the oral consent. Then, teachers distributed a package of the survey scales to each student according to a unique ID code given to each student indicated on the student list. Students filled out the background information section, and continued to complete the rest of the survey scales. For each survey scale, teachers briefly explained what students were asked to do and provided students with necessary language help in completing the scales. Once students finished responding to the survey scales within the time allotted in their classes, teachers collected survey packages, and brought them back to me after their classes were over. Those who needed to take more time to complete the survey scales took their survey packages home, and later brought them to the office or me. Regardless of their participation in the study, teachers gave out some chocolate candies to their students for a token of appreciation from me.

Participants. I administered a survey to the whole body of ESL students who were studying in a 10-week term at the program at three consecutive terms (in December 2013, March 2014, and June 2014). In order to decide to conduct the data collection over a period of three 10-week terms, I had to take student enrollment patterns into consideration. The enrollment in the program fluctuates from one term to another, but there seem to be common trends for the enrollment pattern. When the enrollment is low, which usually happens in the summer and winter terms, the number is about 40 to 50 students. When it is high, which is in the spring and fall terms, it can go up to about 90 students. By collecting data from the entire student body in the program in three separate terms, I thought that I would be able to collect necessary data from approximately 200 students and obtain findings representative of the student population in the program and

generalizable to other ESL programs. In estimating a necessary sample size in study design, Muthén and Muthén (2002) noted that previous studies often offer the best estimates available for Monte Carlo studies, by which researchers attempt to decide on sample size and determine power. Moreover, the average number of participants in the 16 acculturation studies I identified and cited for the literature review was 133 while the total number of participants ranged from 72 in Brisset et al. (2010) and in Chirkov et al. (2008) to 248 in Pedersen et al. (2011). Therefore, aiming to recruit about 200 participants was considered to be acceptable for this study.

Out of 253 students enrolled from October 2013 to June 2014, 228 students completed the survey, which is a 90.11% return rate. Among the 228 students, some were continuing students since students could select how long they would like to study at the program as long as their finances allowed them. Therefore, there were some students who completed the survey on all of the three occasions while there were some who did on two occasions. For the purpose of creating a master dataset, I decided to keep the last data entry for these continuing students while deleting earlier data entries since (a) each student should have only one data entry in the master dataset, and (b) keeping the last data for continuing students seemed to be the most reasonable so as to gain information on degrees of acculturation while studying abroad. In that way, I could give them more time to acculturate themselves in their study abroad settings. A total of 41 continuing student data entries were deleted from the master dataset, resulting in a total of 187 completed data entries, which is equivalent to 82.01% of the total student head counts in the three 10-weeks terms. See Table 3.1 for the breakdowns of students for each data collection time.

Table 3.1

Breakdowns of Students Included in the Study

	Round 1	Round 2	Round 3	Total
Surveys distributed	112	46	95	253
Incomplete surveys returned	4	8	13	25
Completed surveys returned	108	38	82	228
Continuing students deleted	25	16	0	41
Students kept for the master dataset	83	22	82	187

Among 187 students accounted for in this study, there were 48 males (25.7%), and 130 females (74.3%). The majority of the participants came from Japan (N = 102, 54.5%) and South Korea (N = 64, 34.2%). This was followed by groups of participants such as six from China (3.2%), five from Thailand (2.7%), four from Taiwan (2.1%), and six from European countries (3.2%), which included two from France, one from Italy, one from Spain, one from Germany, and one from Poland. The reason that I grouped these European countries together is that our European students comprised only a small percentage (3.2%) of the total student sample at the program. As for Taiwan and China, I followed how the U.S. Immigration and Custom Enforcement requires IEPs to categorize student nationalities for its Student and Exchange Visitor Program (SEVIS) database. Age was from 18 to 77 with an average of 26.77 (SD = 9.66). The mode was 22 (11.8%). Approximately one half of the students in this study were high school graduates or currently enrolled in undergraduate programs in their home countries. As for the highest education level completed, 112 students selected high school (59.9%), 11 2-year junior college (5.9%), 51 4-year college (27.3%), nine graduate school (4.8%), and four others (2.1%). Others included dental hygiene school and nursing school. In respect to their marital status, 169 students were single (90.4%), and 18 were married (9.6%). Their

English proficiency levels determined by the in-house Oral Production placement test were nine students for Basic (4.8%), 58 for High Basic (31.0%), 62 for Intermediate (33.2%), 30 for High Intermediate (16.0%), and 28 for Advanced (15.0%).

There were other notable participant characteristics as shown in Table 3.2. First, the number of terms enrolled in the program ranged from one to eight with an average of 1.53 (*SD* = 1.16), and more precisely, 76.5% of the students included in the sample enrolled in the program only for one term (i.e., 10 weeks). Second, when asked to indicate how long they were learning English, a few indicated only 10 weeks while there was a student who claimed to be learning English for 30 years (M = 8.98, *SD* = 5.49). Most of the Asian students in late teens and early twenties seemed to take the number of years of studying English in schools in their home countries into account for coming up with how many years they had been engaged in learning English, but those who were in their thirties and older seemed to consider learning English only in their adulthood. This could be due to differences in definitions on what "learning" is and really means to them. Third, length of residence in the United States ranged from 10 weeks to three years (M = 6.27, *SD* = 5.39). About 90% of the students seemed to stay in the United States for one year or less before returning to their home countries.

Table 3.2

Participants Characteristics

Categories	Min.	Max.	*M*	Median	*SD*	Skewness	Kurtosis
Age	18	77	26.77	23.00	9.66	2.06	4.79
Terms enrolled	1	8	1.53	1.00	1.61	2.68	8.03
Length of Residence in US (month)	2.50	36.00	6.27	4.00	5.39	3.10	12.09
Length of Leaning English (year)	0.25	36.00	8.98	9.00	5.49	30.19	2.26

Analysis

The data collected on the three separate occasions were first entered into Excel spreadsheets. Once all the numerical responses were entered, those spreadsheets were exported to SPSS, and also to Mplus (Muthén & Muthén, 1998-2015).

Responses from the open ended questions at the end of each section of the Perceived Difficulties and Social Support scales were separately entered into Excel sheets so that they could be easily accessed and reviewed for analyses. There were a total of 101 entries of comments out of the 187 students included in the master dataset. Some students responded to more than one open-ended question. Out of the 101 entries of comments, 44 (43.56%) were for Perceived Difficulties in School, 38 (37.62%) for Perceived Difficulties in Personal Life, 11 (10.89%) for Social Support in School, and eight (7.92%) for Social Support in Personal Life. There were some students who provided more than one type of comments in each open-ended question. For instance, in the section on Perceived Difficulties in School, a student (ID #154) left comments on "concern about improvement in English," "concern about a standardized test," "concern about English proficiency (vocabulary), and "concern about using English." In addition, those who took the survey on more than one occasion could have left their responses more than once. Those multiple comments by one student were counted as a single entry since the master dataset was designed to include one data entry for each student accounted for.

To illustrate this point, I will give an example of how I treated the quantitative and qualitative responses in creating the master dataset by referring to this student (ID #154). Since this individual responded to the survey scales twice in Time 1 and Time 2

out of the three data collecting occasions, I retained her second set of numerical responses for the master data set. However, for the open-ended responses, the student made four comments regarding difficulties in the school life. More precisely, she made comments on "concern about improvement in English" and "concern about English proficiency (vocabulary)" in Time 1, and those on "concern about a standardized test" and "concern about using English" in Time 2. Those comments were considered to be one entry for the dataset along with her numerical responses to the survey scales. However, when it came to the total number of comments left by students, those comments were counted separately. In addition, the number of those who responded to the survey scales more than once was too small (i.e., 41 out of the 228 surveys completed) to be analyzed statistically. Therefore, I did not examine multiple responses within those students who completed the survey scales more than once.

Although the total number of responses to the open-ended questions was small, I reviewed categories for students' comments to the open-ended questions with another doctoral student in the College of Education in the University of Hawai‘i at Mānoa who had completed several qualitative research methods courses. Because the purpose of the open-ended questions was to capture what the items on the survey scales did not address, specific rubrics were not used. Initially, I went over all the responses and sorted them by putting them into different categories. For example, categories for perceived difficulties in personal life included getting a job, future in general, interpersonal relationships, family, money, going back home, dealing with cultural specific remarks, getting integrated in Hawai‘i, his/her English accent, improving English, making friends, and so on. Then, the doctoral student reviewed the original responses and the categories, and

she sorted the responses into the categories independently. Almost all the responses were sorted in the same way I had done. When there were some discrepancies between our judgments, we discussed until we both agreed on the same categories.

Reliability coefficients for numerical responses collected for the Perceived Difficulties and Social Support scales were acceptable: .97 for perceived difficulties in school life, .89 for perceived difficulties in personal life, .85 for social support in school life, and .88 for social support in personal life. As for the Acculturation Index, reliability coefficients were also acceptable: .94 for both co-national and host-national identifications.

Each scale was examined individually because each one addressed a different question. First, I examined both the descriptive statistics of numerical responses and open-ended ones gathered by the scales for Perceived Difficulties and Social Support as well as the descriptive statistics of responses on the Acculturation Index. Based on the descriptive statistics and open-ended responses for the Perceived Difficulties and Social Support scales, I answered Research Questions 1 and 2.

To address Research Question 3, which attempted to explore relationships between Perceived Difficulties, Social Support, and Degrees of Acculturation, I took a two-step approach to structural equation modeling (SEM) to examine how observed variables, actual items that participants had responded to, were related to constructs, that is, latent variables in each scale, prior to testing the fit of the full SEM model. I used both the SPSS and Mplus statistical software packages to carry out this step of checking evidence of construct validity for the survey scales, especially because I had developed the Perceived Difficulties and Social Support scales for this particular research. I

conducted exploratory factor analysis (EFA) first with the responses obtained for the Perceived Difficulties and Social Support scales, separately. EFA is suited to a situation like this where a new instrument is designed and a researcher does not know the links between the observed and latent variables (Byrne, 2012). Therefore, the analysis has to proceed "in an explanatory mode to determine, how and to what extent, the observed variables are linked to their underlying factors" (Byrne, 2012, p. 5) because "the researcher has no prior knowledge that the items do, indeed, measure the intended factors" (Byrne, 2012, p. 6).

In determining how many underlying factors to retain in the data, I examined eigenvalues from EFA outputs by Mplus. To set a cut point for eigenvalues, I used Horn's (1965) parallel analysis (PA), which yields a more accurate cut point for eigenvalues than the conventionally used cut point at eigenvalue of 1.00 (Bandalos & Boehm-Kaufman, 2009; Garrido, Abad, & Ponsoda, 2013). Using O'Connor's (2000) SAS macro, I compared the parallel *n*th eigenvalue with its corresponding part from a randomly drawn sample with the same number of items and participants.

After the underlying latent variables were identified based on the results of EFA, I moved onto confirmatory factor analysis (CFA) to test how well the observed items measuring the latent variables of interest accounted for the latent constructs in each scale using Mplus. CFA is commonly used when a researcher "postulates relations between the observed measures and the underlying factors a priori and then tests this hypothesized structure statistically" (Byrne, 2012, p. 6). I evaluated each CFA model to determine the adequacy of its goodness-of-fit to the sample data. A CFA model is also called a

measurement model because "the strength of the regression paths from the factors to the observed variables (the factor loadings) is of primary interest" (Byrne, 2012, p. 6).

As for the Acculturation Index, I had prior knowledge that the items in the Acculturation Index were supposed to measure the two dimensions of Acculturation (i.e., co-national identification and host-national identification). Thus, on one hand, it looked appropriate for me to start the scale validation process for the Acculturation Index with CFA. However, on the other hand, I decided to run EFA even for the Acculturation Index due to the following reasons: (a) The observed items in each scale (Perceived Difficulties, Social Support, and Acculturation Index) indicated high reliability coefficients. This was a good sign that those items in each scale measured the same domain in a reliable manner. However, this could also be an indication that some of those items could be redundantly tapping into the same construct domain. (b) For the sample size in this study, less than 200, there were too many items included in each scale (i.e., 26 items in Perceived Difficulties, 30 in Social Support, 40 in Acculturation Index) because the scales for Perceived Difficulties and Social Support had to be developed from scratch, and the Acculturation Index items were adapted for the study.

Ultimately, my objectives in developing the new scales for Perceived Difficulties and Social Support and adapting the Acculturation Index were to come up with a set of items that could effectively measure constructs of my interests, and to use them in my analyses to answer my Research Question 3. Therefore, when examining the internal structure measured by each scale with EFA and CFA, it was important for me to selectively eliminate items that may tap into the same domains by looking at response patterns and correlations among items. At the same time, I aimed to obtain simple

structure, which is a pattern of factor analysis results such that each indicator variable loads highly onto only one latent factor. Indicator variables did not load highly onto only one latent factor, that is, those with low loadings on latent factors as well as those with high loadings on more than one latent factor, were also eliminated from further analyses.

In addition, I used the weighed least squares with mean and variance-adjusted standard errors (WLSMV) approach as a model estimation method for my dataset in running CFA. The method commonly used for model estimation with continuous variables is maximum likelihood (ML) estimation, and ML assumes a multivariate normal distribution (Garrido, Abad, & Ponsoda, 2016). However, my scales had categorical variables for which participants had to choose a corresponding number on the fixed-point scales. Therefore, WLSMV was chosen as suited estimation to analyze my dataset with categorical observed variables (Garrido et al., 2016; Li, 2016; Muthén, du Toit, & Spisic, 1997), and WLSMV makes no distributional assumptions about observed indicators (Li, 2016).

There are a number of statistical measures that can be used to evaluate the overall goodness of it of a proposed model, and new ones are being developed all the time (Kline, 2015). These statistical measures are called goodness of fit indices in general. They can present a researcher the information about the extent to which the covariance matrix in the proposed model fits the actual covariance matrix of the obtained data. Also, a researcher needs to be aware that "a single statistic reflects only a particular aspect of fit, [and] a favorable value of that statistic does not by itself indicate acceptable fit" (Kline, 2015, p. 264), and that "fit statistics do not indicate whether the results are theoretically meaningful" (Kline, 2015, p. 264). Moreover, these fit indices can sometimes lead

researchers to struggle with conflicting interpretations regarding model fit as Schermelleh-Engel, Moosbrugger, and Müller (2003) put it:

> Evaluation of model fit is not as straightforward as it is in statistical approaches based on variables measured with error. Because there is no single statistical significance test that identifies a correct model given the sample data, it is necessary to take multiple criteria into consideration and to evaluate model fit on the basis of various measures simultaneously. (p. 31)

It is important to remember that a researcher is the one who evaluates models and further discusses how his or her proposed models are supported by the data, and explains unexpected findings that were not included in original hypotheses (Kline, 2015).

I referred to the following goodness of fit indices in Mplus outputs in order to determine the adequacy of the proposed model (Browne & Cudeck, 1993; Dimitrov, 2011; Geiser 2012; Hu & Bentler, 1999; Kline, 2015; Schermelleh-Engel et al., 2003; Schumacker & Lomax, 2010):

(a) Chi-Square test: A significant chi-square value means the rejection of the null hypothesis that the proposed model fits the data. In other words, a non-significant value is desired as an indication of a good fit. Shumacker and Lomax (2010) noted that "it may be appropriate to call chi-square test a measure of badness of fit" (p. 86). However, the chi-square test statistic is known to be very sensitive due to various conditions such as sample size, multivariate non-normality, correlation size, unique variance, and model complexity (Byrne, 2012; Kline, 2015; Schermelleh-Engel et al., 2003; Schumacker & Lomax, 2010; Tabachnick & Fidell, 2007). Therefore,

although it was routinely referred in examining model fit, it cannot be used as a sole index of model fit, and a significant chi-square value can be taken into consideration along with the other fit indices.

(b) Steiger-Lind Root Mean Square Error of Approximation (RMSEA): Values ≤ .05 for a good fit, and ≤ .08 for an acceptable fit (Browne & Cudeck, 1993; Geiser, 2012).

(c) Bentler Comparative Fit Index (CFI): Values ≥ .95 for a good fit, and ≥ .90 for an acceptable fit (Dimitrov, 2011; Hu & Bentler, 1999).

(d) Tucker-Lewis Index (TLI): Values ≥ .95 for a good fit, and ≥ .90 for an acceptable fit (Dimitrov, 2011; Hu & Bentler, 1999).

In a recent study focusing on the actual accuracy of the commonly reported fit indices in the estimation of data dimensionality (Garrido et al., 2016), the CFI and TLI have indicated the more accurate fit than RMSEA, followed by SRMR (Standardized Root Mean Square Residual). This lends support to place more credibility on the CFI and TLI over the RMSEA and SRMR indices when evaluating a model fit by using these fit indices.

Once a factor structure of each scale was identified, I put together a measurement model based on the factor structures including the latent variables of my interests, and ran structural equation modeling (SEM) to explore relationships among the latent variables. In the following section, I will describe how I used factor analysis to identify latent variables and how I identified a measurement model for each scale.

Perceived Difficulties scales. To begin with, I looked at the correlation matrix for all the 26 measures (i.e., 13 variables from Section 1 of the scale on Perceived

Difficulties (PD) in School, and 13 from Section 2 on PD in Personal Life). A close inspection of the correlation matrix for the PD measures revealed that PD2e (*living alone*) and PD2m (*getting a job after I return to my country*) might not be correlated to the other items well. To be more precise, although all the measures including PD2e and PD2m had at least one correlation with another variable where $r \geq .30$, PD2e and PD2m had only one correlation greater than .40. I also noticed that PD2e (*living alone*) was positively skewed (Skewness = .82, Kurtosis = -.55). Out of the187 participants in the data set, 69 participants chose the lowest category (i.e., 0 on the 6-point scale), followed by 42, 26, 20, 14, and 16. Therefore, I would need to carefully inspect these two items when running further analyses. (See Appendix E for the Correlation Matrix of PD items.)

Initially, the factorability of the intercorrelation matrix from the 26 items was examined using SPSS. Two well-recognized criteria for the factorability were used. Firstly, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .95, which was above the recommended value of .60 (Tabachnick & Fidell, 2007, p. 614). Bartlett's test of sphericity was significant [x^2 (325) = 4262.47, p =.00]. Given these indicators, I proceeded to examine internal factor structure of the PD scale using MPlus.

I started my analysis with EFA to examine the structure of the PD scales with the 26 PD items because I did not have any hypotheses to indicate how the variables measured by the items should correlate with each other. Three factors were extracted according to the conventional Kaiser criterion, which states that researchers should use a number of factors equal to the number of eigenvalues of the correlation matrix that are greater than one. The first eigenvalue was 14.65, and accounted for 56.33% of the variance in the PD data. The second was 1.88 accounting for 7.21% while the third was

1.42 accounting for 5.47%. These three factors accounted for a total of 69.01% of the variance. However, the percentage of variance explained by the second and third factors were relatively small compared to that explained by the first one. In order to set a cut point for eigenvalues for the PD items, I utilized Horn's (1965) parallel analysis. Using O'Connor's (2000) SAS macro, I compared the parallel *n*th eigenvalue with its corresponding part from a randomly drawn sample with the same number of items and participants. Randomly obtained eigenvalues were 1.85 (for the first), 1.70 (for the second), and 1.61 (for the third). The third eigenvalue from this parallel analysis was larger than the third eigenvalue of 1.42 from the EFA. Thus, I decided to go with the two factor model for the PD data.

After closely examining the results of the initial EFA with the 26 PD items, I found some items that did not work with a desirable simple two-factor model: PD1b (*communicating with teachers in English*), PD1k (*making friends*), PD1l (*keeping relationships with others*), PD2b (*having money to support my life abroad*), PD2c (*dealing with culture shock*), PD2d (*living away from family in my home country*), PD2e (*living alone*), and PD2m (*getting a job after I return to my country*). At that point, I decided to drop these eight items from the model because of the following two reasons: (a) Keeping these eight items could add irrelevant variance to the two factor model. (b) Despite the eight items being dropped from the model, there would be 18 other items included in the model, all of which could contribute to account for enough variance included in the two-factor PD model. Moreover, in the reiterative process of examining items with EFAs, I noticed that PD1e (*doing individual work in class*) and PD1f (*doing group work in class*) could be confusing to participants because another item PD1d

(*participating in class*) could also be interpreted to include these types of in-class activities. Similarly, PD2f (*living with other people*) could also possibly cause confusion among participants along with the other two items related to living circumstances (PD2d, PD2e). PD1m (*working toward my future plans*) loaded highly on factor 2. So did PD2l (*working toward my future plans*). PD2a (*communicating with others in English*) loaded highly on factor 1. But PD2a (*communicating with others in English*) could tap into the same domain as PD1a (*communicating with other students in English*), and PD2a demonstrated a weaker loading on factor 1 than PD1a. Therefore, these five items (Pd1e, PD1f, PD2f, PD1m, and PD2a) were also dropped from further analyses.

After a series of EFA, a set of 13 items was retained. The results of EFA revealed that two factors that had eigenvalues greater than one, 8.36 and 1.30, and they explained 64.29% and 10.00%, which are equal to 74.29% of the total variance. (In the initial two-factor model with the 26 items, the two factors accounted for 63.54%.) As shown in Table 3.3, the rotated solution demonstrated simple structure (see Table 3.3).

Table 3.3

Factor Loadings for Exploratory Factor Analysis with Geomin Rotation of Perceived Difficulties Scales

Scale	School Difficulties	Living Abroad Difficulties	Communalities
Communicating with Other Students in English (PD1a)	**.89**	-.11	.81
Getting Feedback from Teachers to Improve My English Ability (PD1c)	**.84**	-.02	.71
Participating in Class (PD1d)	**.87**	.05	.75
Doing Homework (PD1g)	**.90**	.00	.80
Taking Tests or Quizzes (PD1h)	**.89**	-.02	.79
Getting Used to University Campus Life (PD1i)	**.80**	.08	.64
Following School Rules (PD1j)	**.90**	.03	.80
Making Friends (PD2g)	.01	**.94**	.88
Keeping Relationships with Others (PD2h)	.05	**.93**	.86
Keeping My Visa Status (PD2i)	-.04	**.74**	.54
Keeping My Health (PD2j)	-.04	**.79**	.63
Dealing with Prejudice Based on My Nationality (PD2k)	.07	**.70**	.49
Working toward My Future Plans (PD2m)	-.02	**.63**	.40

Note. Major loadings for each item are bolded. Geomin factor correlation $r = .77^*$ ($p < .05$)

By examining how the items loaded on either one of the two latent factors, it seemed appropriate to call the first factor School Difficulties and the second one Living Abroad Difficulties. School Difficulties included the indicator variables that were originally in Section 1 of the survey instruments, perceived difficulties in school while Living Abroad Difficulties were connected to those in Section 2 of the survey, perceived difficulties in personal life. Since a majority of students included in the study wish and expect to improve their English skills by enrolling in an intensive English program for at least one term of 10 weeks or more, it was not surprising that their concerns in school were centered around activities that students were expected to engage in to be successful in their school lives. Among those related to Living Abroad Difficulties, building and maintaining interpersonal relationships with others were strong indicators for perceived difficulties among students while living abroad. In addition, the correlation between the

two factors was .77, which indicates that 59.29% of common variance was explained by this factor structure.

Based on the EFA results, I proposed a following two-factor model to illustrate dimensionalities and relationships among latent and indicator variables with respect to Perceived Difficulties (see Figure 3.1).

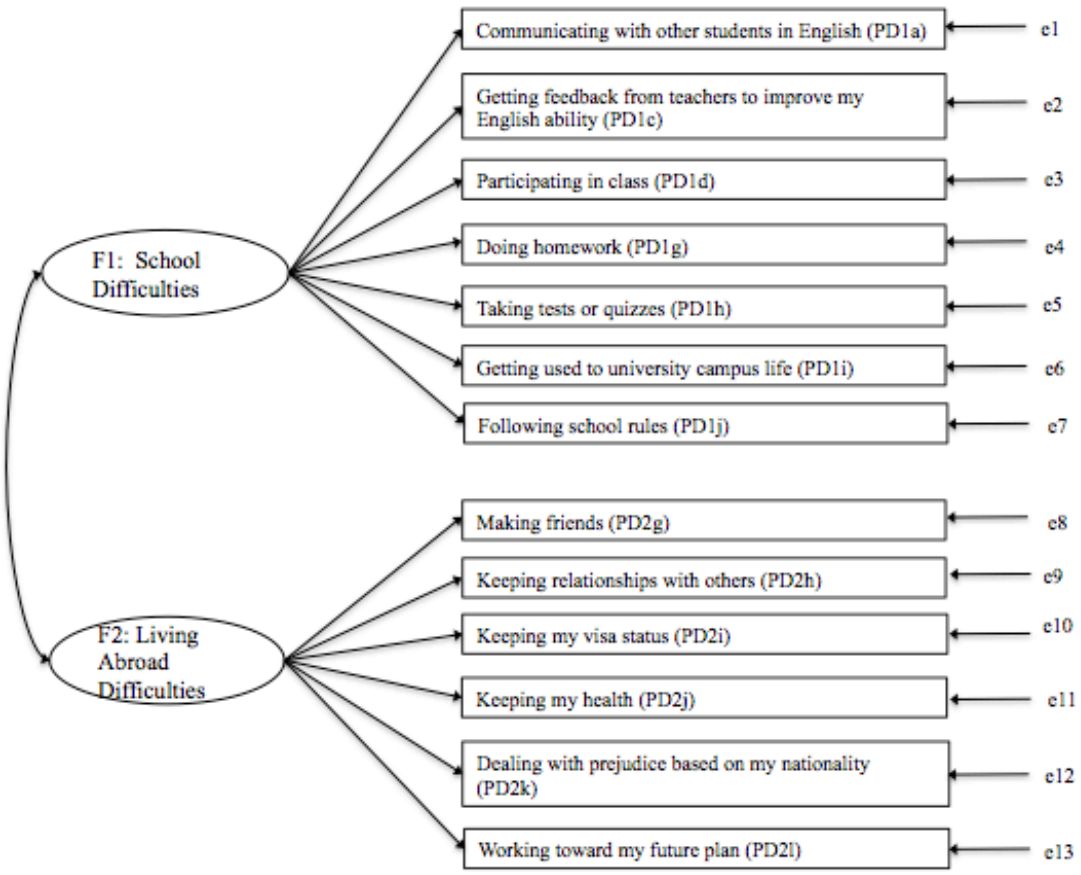

Figure 3.1 Hypothesized measurement model for Perceived Difficulties

In order to evaluate if the hypothesized model about Perceived Difficulties in Figure 3.1 fit the PD data, I performed CFA. The proposed PD model consisted of circles representing latent variables as well as rectangles representing measured or indicator variables. There were two hypothesized latent factors, School Difficulties and

Living Abroad Difficulties. Indicators of the first factor were *communicating with other students in English* (PD1a), *getting feedback from teachers to improve my English ability* (PD1c), *participating in class* (PD1d), *doing homework* (PD1g), *taking tests or quizzes* (PD1h), *getting used to university campus life* (PD1i), and *following school rules* (PD1j). Those of the second were *making friends* (PD2g), *keeping relationships with others* (PD2h), *keeping my visa status* (PD2i), *keeping my health* (PD2j), *dealing with prejudice based on my nationality* (PD2k), and *working toward my future plan* (PD2l). The two latent factors were hypothesized to covary with each other.

CFA was conducted to test if the proposed model fit the data set. Since indicator variables were measured on a Likert-scale and the responses collected were ordinals, weighted least squares means and variance adjusted (WLSMV) estimation was employed to estimate models. Several fit indices were referred to in order to determine the fit of the measurement model. First, the Chi-square value was significant [x^2 (64) = 148.08, p = .00], and it indicated that the hypothesized model did not fit the data well. RMSEA was .08 with the 90% confidence interval of .07 and .10. This value indicated an acceptable fit (Browne & Cudeck, 1993; Geiser, 2012). CFI and TLI were .99 and .99. These values indicated a good fit (Dimitrov, 2011; Hu & Bentler, 1999). Overall, these model fit indices supported the final model in Figure 3.2.

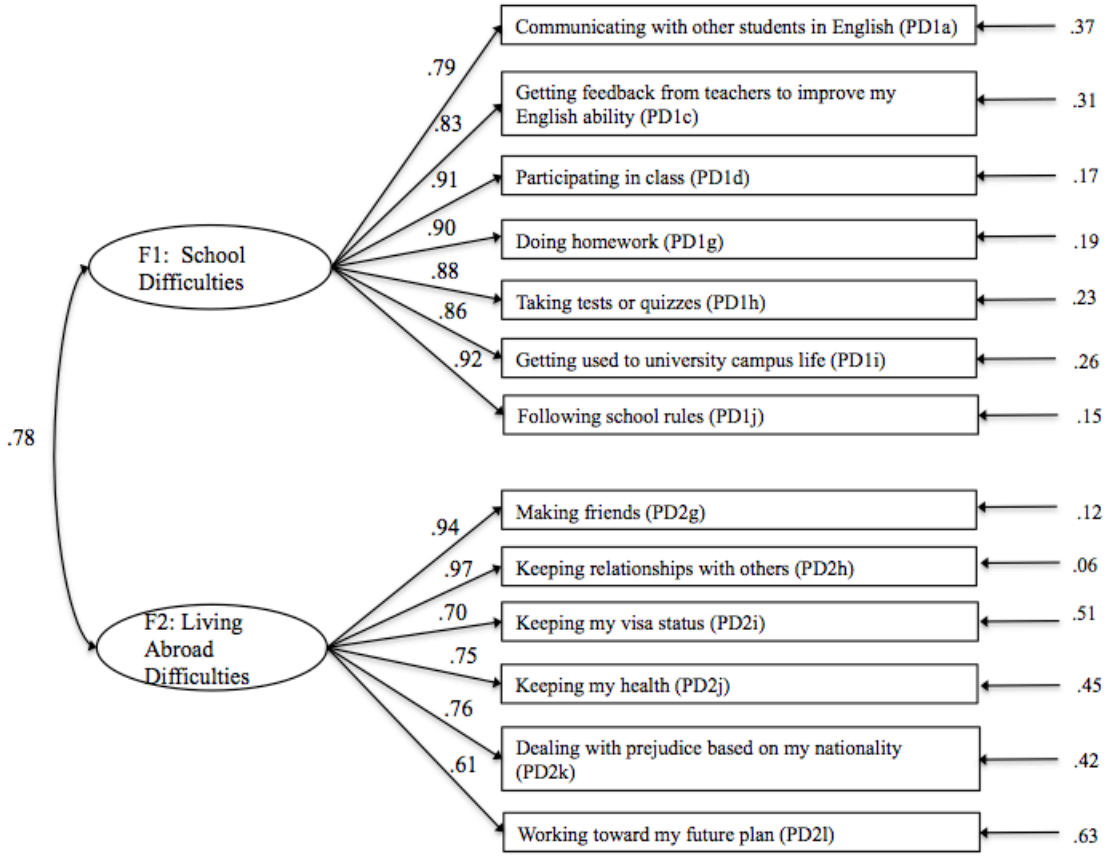

Figure 3.2 Measurement model for Perceived Difficulties

In respect to reliabilities among the indicator variables for each latent variable, Cronbach's alphas based on standardized items were .95 for School Difficulties and .89 for Living Abroad Difficulties.

Social Support (SS) scales. As the first step in the process of exploring dimensions measured in the survey instruments regarding the use of social support among students, I decided to eliminate seven somewhat ambiguous items from further analyses (SS3/SS4h, *relatives or family in Hawai'i who speak my native language*; SS3/SS4i, *relatives or family in Hawai'i who speak different native languages*; SS3/SS4j, *host family or roommates who speak my native language*, SS3/SS4k, *host family or*

roommates who speak different native languages; SS3/SS4l, *neighbors who speak my native languages*; SS3/SS4m, *neighbors who speak different native languages*; SS3/SS4n, *counselors*). Earlier in the process of revising the survey items before data collection, I had made an explicit decision that the survey questions on social support should be about *received* social support, not *perceived* social support (or the availability of social support). Thus, the questions were worded as "when I have difficulties in my school/personal life, I *receive* help or advice from the following people." However, I came to realize that those items asking about the received support from relatives or family in Hawai‘i, host family or roommates, neighbors, and counselors could pose a serious threat to the validity of the scales since there could be students (a) who had access to these people but did not choose to receive help or advice from them, or (b) who did not have access to these people and naturally could not receive help or advice from them. Given that participants were only allowed to indicate their responses on scales of 0 (never) to 5 (always) and that the "not applicable" option was not available, there was no way to interpret their responses on these items.

After these seven items were dropped from both sections for social support, I moved onto examining responses given to the eight items in Section 3 of the survey (Social Support in School) and those given to the corresponding eight items in Section 4 (Social Support in Personal Life) separately.

Social Support in School scale. In respect to the eight items in Section 3 (Social Support in School), first, I visually examined the correlation matrix for the eight items in the SS3 data. All of them had more than one correlation larger than .30. (See Appendix F for the Correlation Matrix of SS3 items.) Second, the factorability of the

intercorrelation matrix from the eight items was examined using SPSS. The KMO was .79, which was above the recommended value of .60 (Tabachnick & Fidell, 2007). Bartlett's test of sphericity was significant [x^2 (28) = 459.94, p =.00]. Given these indicators, I moved onto analyzing the SS3 data with Mplus.

EFA with the SS3 data extracted two factors according to the Kaiser criterion. The first eigenvalue was 3.70 accounting for 46.22% of the variance in the SS3 data, and the second one was 1.32 accounting for 16.55%. These two factors explained for a total of 62.77% of the variance in the SS3 data. In order to confirm a cut for eigenvalues, I ran parallel analysis using O'Connor's (2000) SAS macro. Randomly obtained eigenvalues were 1.31 (for the first), 1.20 (for the second), and 1.11 (for the third). The third eigenvalue from this parallel analysis was larger than the third eigenvalue of .72 from EFA. This supported the two-factor model for the SS3 data.

Several rounds of EFA were conducted with different oblique rotations in order to arrive at an interpretable and simple factor structure. I decided to eliminate one more item (SS3g, *friends outside school who speak different native languages*) from further analyses because it did not fit well with a two-factor model I was trying to achieve.

A Promax rotation provided the best factor structure that I could give interpretable terms to the two factors extracted while explaining 53.77% of the variance. The rotated solution demonstrated simple structure as shown in Table 3.4.

Table 3.4

Factor Loadings for Exploratory Factor Analysis with Promax Rotation of Social Support in School Scale

Scale	Second Language Social Support	First Language Social Support	Communalities
Teachers at school (SS3a)	**.74**	.09	.56
The program director or academic coordinator (SS3b)	**.88**	-.16	.80
Office staff (SS3c)	**.78**	-.02	.61
Friends in school who speak different native languages (SS3e)	**.44**	.29	.28
Friends in school who speak my native language (SS3d)	-.02	**.74**	.55
Friends outside school who speak my native language (SS3f)	-.15	**.83**	.70
Friends or family in my country (SS3o)	.25	**.45**	.26

Note. Major loadings for each item are bolded. *Promax* factor correlation $r = .50$

Each of the two factors seemed to have some underlying characteristics, which helped me give meaningful names to them. Firstly, the items loaded high on the first factor included those who students met in school and those who did not use students' native language as a means of communication, which resulted in using English instead to communicate with each other. Thus, this factor was named as Second Language Social Support (L2SS). Secondly, those loaded on the second factor was called as First Language Social Support (L1SS) because they included peers they meet in and outside school and use students' native language as a means of communication as well as their friends and family back in their home countries. In addition, correlations among these factors was .50, and the correlation between the two factors demonstrated that 25.00% of the common variance was explained by the factor structure.

Based on the above findings, I proposed the following model to explain the structure of the survey scales with respect to Social Support in School life as illustrated in Figure 3.3.

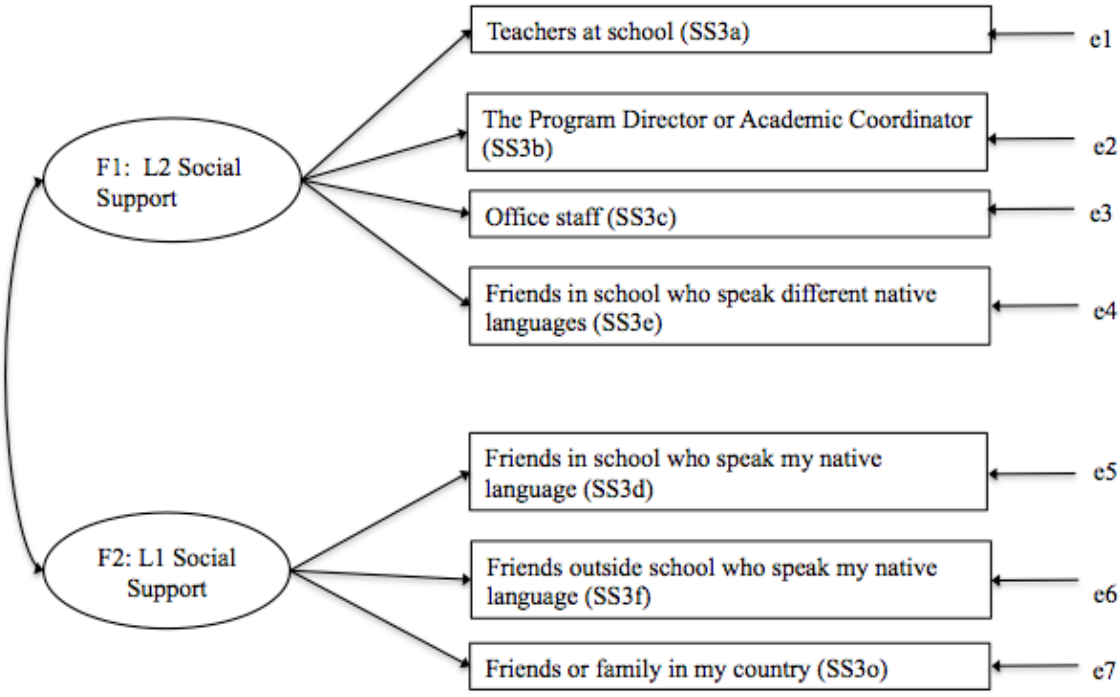

Figure 3.3 Hypothesized measurement model for Social Support in School

Next, based on the hypothesized two-factor model of the SS3 data, CFA was performed through Mplus. A two-factor model of Social Support in School, L2SS and L1SS, is hypothesized. *Teachers at school* (SS3a), *the Program Director or Academic Coordinator* (SS3b), *office staff* (SS3c), and *friends in school who speak different native language* (SS3e) serve as indicators of the first factor, L2SS. *Friends in school who speak my native language* (SS3d), *friends outside school who speak my native language* (SS3f), and *friends or family in my country* (SS3o) serve as indicators of the second factor, L1SS. The two factors were hypothesized to covary with one another.

In order to test if the proposed model fit the data set, I conducted CFA with WLSMV for model estimation. I referred to several fit indices to determine the fit of the measurement model. First, the Chi-square for the test of model fit was 53.48 with a

degree of freedom of 13 [x^2 (13) = 53.48, p = .00]. This significant result of the Chi-square test indicated that the proposed measurement model did not fit the data well. Second, RMSEA was .13 with the 90% confidence interval between .10 and .17. This was much larger than the RMSEA recommended value of less than .08 for an acceptable fit (Browne & Cudeck, 1993; Geiser, 2012). In addition, CFI was .95, and TLI was .92. A value larger than .95 is recommended for a good fit, and a value larger than .90 is for an acceptable fit (Dimitrov, 2011; Hu & Bentler, 1999). These model fit indices did not support the proposed model to a desirable degree, yet.

In an attempt to improve its model fit of the proposed measurement model, post hoc model modifications were performed based on model modification indices in the Mplus CFA output. Modification indices suggested the addition of error covariance between items that measured the same latent factor. First, I started with the items that had the largest change in the Chi-square value. As shown in Table 3.5, by making each modification, a new error covariance was added to those entered in the previous model. I made two modifications by adding covariance between SS3f (*friends in school who speak my native language*) and SS3d (*friends outside school who speak my native language*), and between SS3c (*office staff*) and SS3b (*the program director or the academic coordinator*). It was theoretically reasonable that these items loaded on the same factor covaried, as they should be tapping into the same latent construct.

Table 3.5

Fit Indices for Measurement Model for Social Support in School

Model	Description	x^2	*df*	RMSEA [90% CI]	CFI	TLI
Initial model	Initial measurement model	53.48*	13	.13 [.10, .17]	.95	.92
Modification 1: SS3F with SS3D	Added covariance between items measuring L1 Social Support	44.52*	12	.12 [.08, .16]	.96	.93
Modification 2: SS3C with SS3B	Added covariance between items measuring L2 Social Support	31.41*	11	.10 [.06, .14]	.98	.95

*$p < .05$

The final measurement model is illustrated in Figure 4. The Chi-square for the test of model fit was 31.41 with a degree of freedom of 11. This significant result of the Chi-square test indicated that the modified measurement model did not fit the data well. RMSEA was .10 with the 90% confidence interval between .06 and .14. It was slightly larger than the recommended value of less than .08 for an acceptable fit (Browne & Cudeck, 1993; Geiser, 2012). CFI and TLI were .98 and .95, and both of them were above the recommended values of .95 for a good fit (Dimitrov, 2011; Hu & Bentler, 1999). Given that CFI and TLI were reported to be more accurate than RMSEA in explaining a model fit (Garrido et al., 2016), I considered that these model fit indices supported the final model, which includes significant coefficients in standardized form, as shown in Figure 3.4.

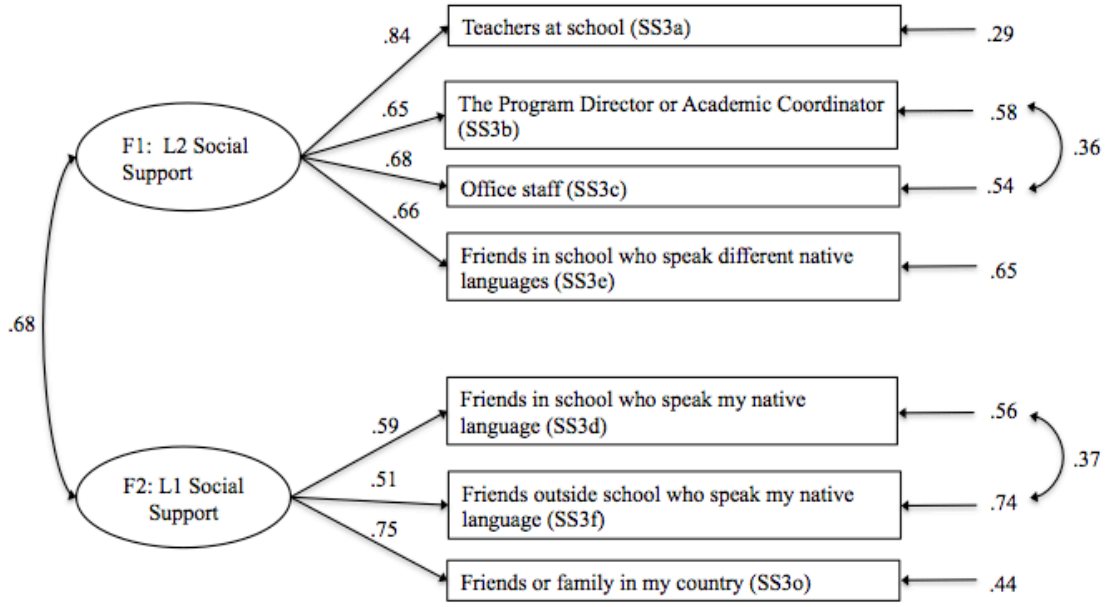

Figure 3.4 Measurement model for Social Support in School

In respect to reliabilities among the indicator variables for each latent variable, Cronbach's alphas based on standardized items were .79 for L2SS and .69 for LISS.

Social Support in Personal Life scale. As was the case for the eight items that remained for analyses in Section 3 (Social Support in School), the same number of items in Section 4 (Social Support in Personal Life) was examined, and those eight items concerned about the use of social support students had when they faced difficulties in their personal lives.

The factorability of the intercorrelation matrix from the eight items was examined by using SPSS. The KMO was .77, which was above the recommended value of .60 (Tabachnick & Fidell, 2007, p. 614). Bartlett's test of sphericity was significant [x^2 (28) = 618.18, p =.00]. Second, the communalities were all over .30. (See Appendix G for the Correlation Matrix of SS4 items.) These initial findings confirmed that each item

shared some common variance with other items included in the data, and provided support for me to further explore the SS4 data using EFA.

The results of EFA indicated two latent factors according to the Kaiser criterion. The first eigenvalue was 4.06 accounting for 50.75% of the variance in the SS4 data, and the second one was 1.29 accounting for 16.13%. These two factors explained a total of 66.88% of the variance in the SS4 data. The results of parallel analyses using O'Connor's (2000) SAS macro for randomly obtained eigenvalues were 1.305 (for the first), 1.199 (for the second), and 1.109 (for the third). The third eigenvalue from this parallel analysis was larger than the third eigenvalue of .82 from EFA. With all the information about eigenvalues, I decided to go with a two-factor model for Social Support in Personal Life.

As I did with the data on Social Support in School, I conducted several rounds of EFA with different oblique rotations with Mplus. I eliminated one more item (SS4o, *friends or family in my country*) from further analyses because it did not fit well with a two-factor model. A Promax rotation yielded the best interpretable two-factor structure while explaining 61.70% of the variance. The rotated solution demonstrated simple structure, and it is presented in Table 3.6.

Table 3.6

Factor Loadings for Exploratory Factor Analysis with Promax Rotation of Social Support in Personal Life Scale

Scale	Second Language Non-Peer Social Support	Mixed Peer Social Support	Communalities
Teachers at school (SS4a)	**.74**	.14	.56
The program director or academic coordinator (SS4b)	**.92**	-.03	.84
Office staff (SS4c)	**.96**	-.05	.92
Friends in school who speak my native language (SS4d)	-.24	**.85**	.78
Friends in school who speak different native languages (SS4e)	.24	**.61**	.42
Friends outside school who speak my native language (SS4f)	.05	**.67**	.45
Friends outside school who speak different native languages (SS4g)	.29	**.51**	.34

Note. Major loadings for each item are bolded. Promax factor correlation $r = .55$

As clearly seen in the factor loadings table about the data on Social Support in Personal Life, the items converged on the two factors. The first factor included school personnel and teachers who used English to communicate with students. The second one included friends that they had in and outside their school lives and used both their native languages and English to communicate with. Therefore, they were named as Second Language Non-Peer Social Support (L2NPSS) and Mixed Peer Social Support (MPSS). Moreover, correlations among these factors was .55, and the correlation between the two factors demonstrated that 30.25% of the common variance was explained by the factor structure.

Based on the above findings, I proposed the following model to explain the structure of the Social Support in Personal Life scale as illustrated in Figure 3.5.

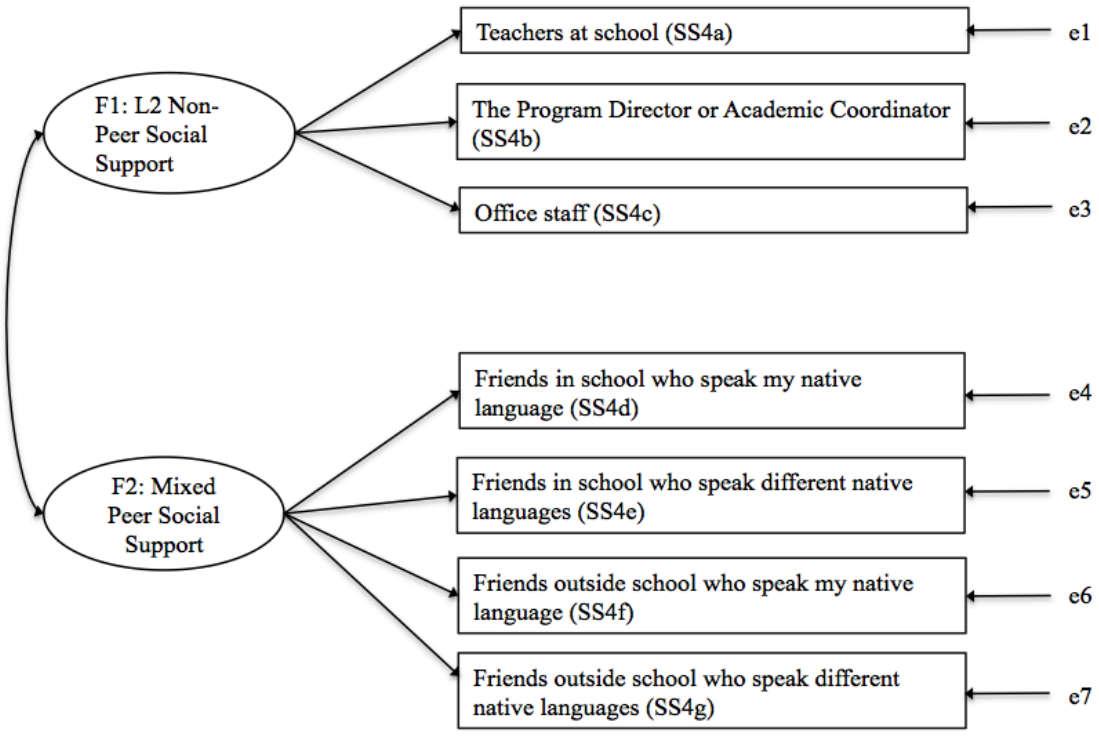

Figure 3.5 Hypothesized measurement model for Social Support in Personal Life

This model hypothesized a two-factor model of Social Support in Personal Life, L2NPSS and MPSS. *Teachers at school* (SS4a), *the Program Director or Academic Coordinator* (SS4b), and *office staff* (SS4c) served as indicators of the first factor, L2NPSS. *Friends in school who speak my native language* (SS4d), *friends in school who speak different native languages* (SS4e), *friends outside school who speak my native language* (SS4f), and *friends outside school who speak different native languages* (SS4g) served as indicators of the second factor, MPSS. The two factors were hypothesized to covary with one another.

In order to test if the proposed model fit the data set, I conducted CFA with WLSMV for model estimation while referring to several fit indices to check the fit of the measurement model. First, the Chi-square for the test of model fit was 83.01 with a

degree of freedom of 13. This significant result of the Chi-square test indicated that the proposed measurement model did not fit the data well. Second, RMSEA was .17 with the 90% confidence interval between .14 and .20. This was larger than the recommended value of RMSEA of less than .05 (Browne & Cudeck, 1993; Geiser, 2012). In addition, CFI was .97, and TLI was .95. Both of them were above the recommended value for CFI and TLI of larger than .95 for a good fit (Dimitrov, 2011; Hu & Bentler, 1999).

Since there seemed to be some room for an improvement of the model fit of the proposed measurement model, post hoc modifications were performed based on modification indices suggested in the Mplus output. I made only one modification by adding covariance between *friends in school who speak my native language* (SS4d) and *friends outside school who speak my native language* (SS4f) as shown in Table 3.7. It was a theoretically reasonable modification because these two items loaded on the same latent factor, MPSS.

Table 3.7

Fit Indices for Measurement Model for Social Support in Personal Life

Model	Description	x^2	*df*	RMSEA [90% CI]	CFI	TLI
Initial model	Initial measurement model	83.01*	13	.17 [.10, .17]	.97	.95
Modification 1: SS4F with SS4D	Added covariance between items measuring Mixed Peer Social Support	41.56*	12	.12 [.06, .14]	.99	.98

*$p \leq .05$

The final model is illustrated in Figure 6. The Chi-square for the test of model fit was 41.56 with a degree of freedom of 12. This significant result of the Chi-square test indicated that the modified measurement model did not fit the data well. RMSEA was .12 with the 90% confidence interval between .08 and .15. It was slightly larger than the recommended value of less than .05 for a good fit and .08 for an acceptable fit (Browne

& Cudeck, 1993; Geiser, 2012). CFI and TLI were .99 and .98. These matched the recommended values for CFI and TLI for a good fit, .95 or above (Dimitrov, 2011; Hu & Bentler, 1999).

CFI and TLI appear to have more credibility than RMSEA in evaluating data dimensionality (Garrido et al., 2016). Therefore, these model fit indices provided support for the final model including significant coefficients in standardized form, as shown in Figure 3.6.

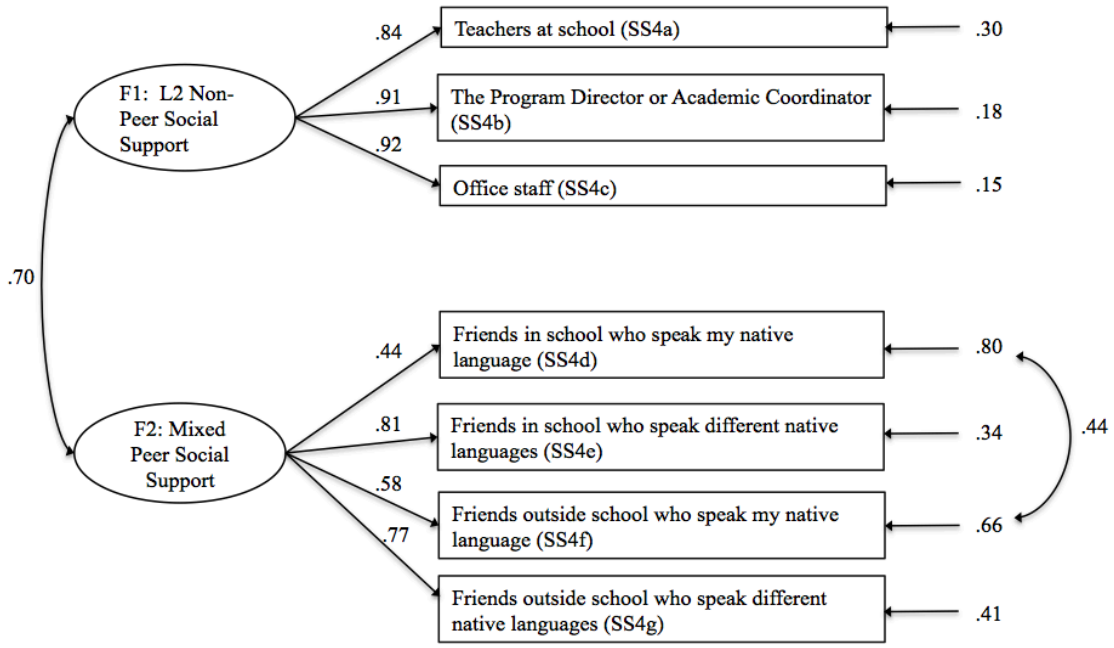

Figure 3.6 Measurement model for Social Support in Personal Life

In respect to reliabilities among the indicator variables for each latent variable, Cronbach's alphas based on standardized items were .88 for L2NPSS and .73 for MPSS.

Acculturation Index. Although the responses on the Acculturation Index (AI) yielded the two composite scores indicating the acculturation attitude among participants in terms of co-national identification and host-national identification, I needed to look for

evidence of validity in order to use this scale to answer my research questions. As the goal of this study was to investigate relationships among latent factors related to Perceived Difficulties, Social Support, and Degrees of Acculturation, it was necessary to closely examine the factor structure of the responses collected through the Acculturation Index as was done with the other three scales for Perceived Difficulties, Social Support in School, and Social Support in Personal Life.

First, the factorability of the intercorrelation matrix from a total of 40 items in the Acculturation Index was examined using SPSS. (See Appendices H for the Correlation Matrix of AI Co-National Identification items, and I for the Correlation Matrix of AI Host-National Identification items.) The KMO measure of sampling adequacy was .90, which was above the recommended value of .60 (Tabachnick & Fidell, 2007, p.614). Bartlett's test of sphericity was significant [x^2 (780) = 4685.023, p =.00]. These statistics supported the factorability of the AI data for further analyses.

Since the Acculturation Index was initially designed to measure two independent (i.e., uncorrelated) dimensions regarding respondents' acculturative orientations, it may seem appropriate to choose CFA to examine the factor structure. However, there was no previous research known to the researcher that utilized factor analysis to examine items included in the Acculturation Index for the present sample group, which was a mix of ESL students enrolled in an intensive English program while studying abroad. Therefore, I decided to carry out EFA to examine how many latent factors were to be identified.

First, eigenvalues for the sample correlation matrix were examined. The first eigenvalue was 13.60 explaining 34.00% of the variance, and the second one was 6.78 explaining 16.95%. From the third to the seventh eigenvalues, they were above the

common cut point eigenvalue of 1 (i.e., 1.84, 1.52, 1.25, 1.21, 1.11). In order to set a cut point for eigenvalues for the AI items, I utilized parallel analysis (Horn, 1965). Using O'Connor's (2000) SAS macro, randomly obtained eigenvalues were 2.15 (for the first), 1.98 (for the second), and 1.87 (for the third). The third eigenvalue from this parallel analysis was larger than the third eigenvalue of 1.84 from the EFA results. Thus, I decided to go with a two-factor model for the AI data.

Since there were a total of 40 variables in a two-factor model I was trying to achieve, I suspected that there must have been some items tapping into the same constructs redundantly. First, I closely examined the wordings used in the AI items. I decided to eliminate a set of seven items (i.e., a total of 14 items) that it might have been difficult for ESL participants to respond because those items could have posed a threat to face validity of the scale: for example, CNIc/HNIc, *general knowledge, what you know about things in general*; CHIe/HNIe, *religious ideas, beliefs*; CNIh/HNIh, *self-identity, idea about who you are*; CNIo/HNIo, *how you think about people in your home country*; CNIp/HNIp, *how you think about Americans in this country*; CNIq/HNIq, *what political ideas you have*; CHIr/HNIr, *how you think about the world*). Second, I conducted several rounds of EFA with Geomin rotation using Mplus until I reached a simple loading structure, in which each indicator variable loaded highly onto one latent factor, not the other. Over the course of several EFAs, I eliminated the following 10 items (CNId, *food, what you eat*; CNIi, *accommodation, where and how you live*; CNIj, *values, what is important to you*; CNIk, *friendships*; CNIl, *communication styles*; CNIm/HNIm, *cultural activities that you participate*; CNIn/HNIn, *language*; CNIt, *school activities that you participate*) from further analyses because they did not fit well with a two-factor model.

Third, I examined the response patterns among the remaining indicator items, and decided to drop some more that indicated similar response patterns in order to retain only those that could "provide minimum coverage of the [constructs'] theoretical domain" (Hair, Black, Babin, & Anderson, 2010, p. 676). In this process, I dropped five more items from the AI dataset (HNIb, *pace of life, how you pace your daily activities*; HNIi, *accommodation, where and how you live*; HNIj, *values, what is important to you*; HNIs, *social customs, behaviors, manners*; HNIt, *school activities that you participate*). Selectively eliminating and retaining items from the pool of 40 items resulted in a two-factor model with a simple structure. The factor loadings for the AI data are presented in Table 3.8.

Table 3.8

Factor Loadings for Exploratory Factor Analysis with Geomin Rotation of the Acculturation Index

Scale	Co-National Identification	Host-National Identification	Communalities
Clothing, what you wear (CNIa)	**.74**	-.05	.56
Pace of life, how you pace your daily activities (CNIb)	**.85**	-.07	.73
Material comfort, standard of living (CNIf)	**.74**	.05	.55
Activities that you do in free time (CNIg)	**.66**	.03	.44
Social customs, behaviors, manners (CNIs)	**.63**	.06	.40
Clothing, what you wear (HNIa)	.04	**.63**	.40
Food, what you eat (HNId)	-.05	**.70**	.50
Material comfort, standard of living (HNIf)	.07	**.65**	.43
Activities that you do in your free time (HNIg)	.07	**.62**	.39
Friendships (HNIk)	-.01	**.67**	.44
Communication styles (HNIl)	-.01	**.73**	.54

Note. Major loadings for each item are bolded. Geomin factor correlation $r = .30^*$ ($p < .05$)

As I anticipated, the Geomin rotated loading pattern indicated a simple structure. The five CNI items loaded on the first factor called Co-National Identification (CNI), and the six HNI items did on the second factor called Host-National Identification (HNI). The correlation between these two factors was significant ($r = .30$, $p < .05$), on contrary

to the previous studies which utilized the Acculturation Index to measure acculturation orientations among participants (i.e., Ward, 1999). However, a unique mix of ethnic and linguistic backgrounds with host-nationals in Hawai‘i and the similarities in ethnic and linguistic backgrounds (State of Hawai‘i Department of Business, Economic Development & Tourism, 2016, 2015) might have contributed to this significant correlation between the two factors here.

Based on the results of EFAs, I proposed the following two-factor model for Degrees of Acculturation (DA) measured by the Acculturation Index, as presented in Figure 3.7.

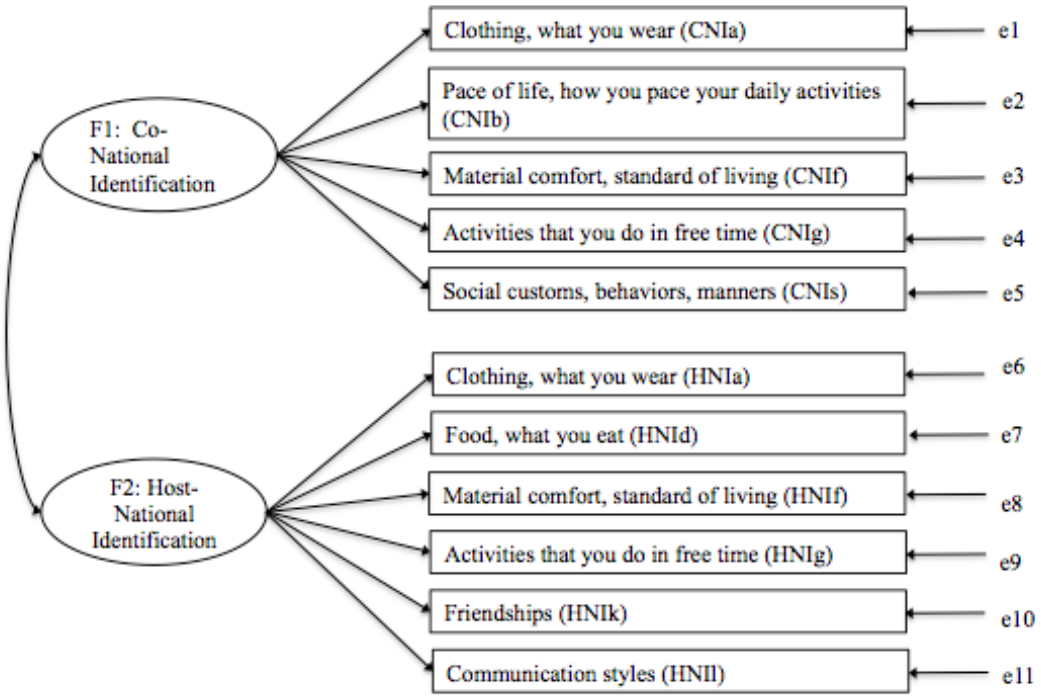

Figure 3.7 Hypothesized measurement model for Degrees of Acculturation

As was the case with the hypothesized models for PD, SS in School, and SS in Personal Life, circles represented latent variables while rectangles represented measured or indicator variables. A two-factor model of Degrees of Acculturation (DA), CNI and

HNI, was hypothesized. The five co-national identification related items (CNIa, CNIb, CNIf, CNIg, CNIs) loaded onto the first latent factor, CNI, and the five host-national identification related items (HNIa, HNId, HNIf, HNIg, HNIk, HNIl) loaded onto the second latent factor, HNI.

In order to test if the proposed model fit the data set, CFA was conducted using Mplus. Responses on the indicator variables in the AI were categorical, so weighted least squares means and variance adjusted (WLSMV) estimation was employed to estimate models. Since the AI was supposed to identify two independent (i.e., uncorrelated) dimensions, the two latent factors were not allowed to correlate for this analysis. First, the chi-square value for the two factor model was significant [x^2 (43) = 93.86, p = .00], which indicated that two factor model did not fit the data well. RMSEA was .08 with the 90% interval of .06 and .10, which indicated an acceptable fit (Browne & Cudeck, 1993; Geiser, 2012). CFI and TLI were .96 and .95, and both of them demonstrated an acceptable fit (Dimitrov, 2011; Hu & Bentler, 1999). The final measurement model is presented in Figure 3.8.

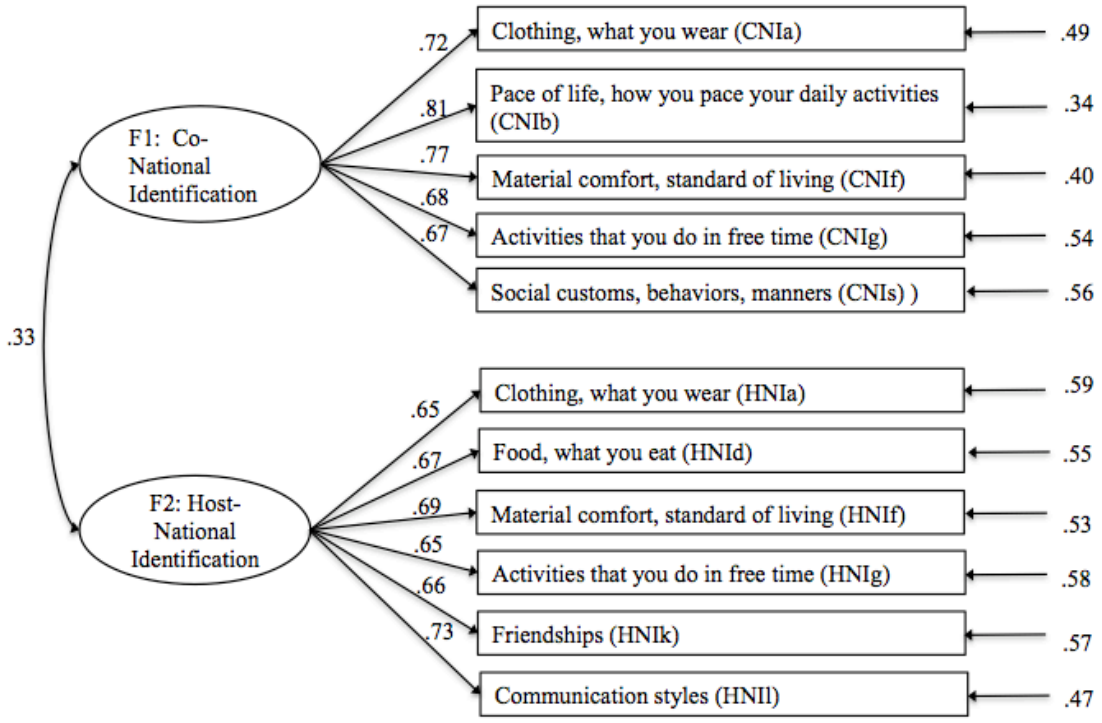

Figure 3.8 Measurement model for Degrees of Acculturation

In respect to reliabilities among the indicator variables for each latent variable, Cronbach's alphas based on standardized items were .83 for CNI and .80 for HNI.

Structural equation modeling. Structural equation modeling (SEM) refers to a family of related statistical procedures, and is not a single statistical technique. The goal of SEM is "to *test a theory* [emphasis in original] by specifying a model that represents predictions of that theory among plausible constructs measured with appropriate observed variables" (Kline, 2015, p. 10). In other words, researchers employ SEM "to determine the extent to which the theoretical model is supported by sample data" (Schumacker & Lomax, 2010, p. 2). SEM has gained popularity for non-experimental research, in which methods for testing theories are not yet well established (Byrne, 2012), and it has been frequently used in the behavioral sciences because researchers often focus on

investigating directly unobservable theoretical constructs in their research (Byrne, 2012). As is the case with CFA, SEM is a confirmatory statistical approach, but it further allows researchers "to test theoretical models using the scientific method of hypothesis testing to advance our understanding of the complex relationships among constructs" (Schumacker & Lomax, 2010, p. 2).

For Research Question 3, I used SEM to examine the hypothesized relationships between variables (i.e., observed and latent variables) using Mplus. SEM can help me examine relationships among latent variables related to Perceived Difficulties, Social Support, and Degrees of Acculturation. In order to evaluate a fit of the proposed model with sample data, I used the same set of goodness of fit criteria in Mplus outputs which I had referred to when examining a fit of a measurement model in the results of CFA.

In Chapter 2, I had proposed my initial model including the constructs of my interests and relationships among them in Figure 2.1 along with the hypotheses I had formulated based on the conceptual framework and the information from the existing literature. According to the conceptual framework, I had simply postulated that degrees of Perceived Difficulties for students when initially identifying and assessing tasks in the acculturation process would be positively related to the amounts of Co-National and General Social Support that they utilize in negotiations of meaning to complete tasks. Furthermore, the more Co-National Social Support that they receive, the higher degrees of Co-National Identification but the lower degrees of Host-National Identification that they experience as acculturative changes. The more General Social Support, the lower degrees of Co-National Identification but the higher degrees of Host-National Identification.

As I had anticipated, however, based on the findings on each measurement model, I had to revise the initial model and proposed another hypothesized model as depicted in Figure 3.9. This model illustrated relationships among latent variables related to Perceived Difficulties, Social Support, and Degrees of Acculturation. Paths were drawn from School Difficulties (SD) to the two latent factors of Social Support in School, Second Language Social Support (L2SS) and First Language Social Support (L1SS), while Living Abroad Difficulties (LAD) was hypothesized to predict the other two latent factors of Social Support in Personal Life, Second Language Non-Peer Social Support (L2NPSS) and Mixed Peer Social Support (MPSS). I hypothesized that the more difficulties that students faced in their school and personal, non-school, settings, the more support that they received from various individuals that they knew of regardless of their language backgrounds (i.e., whether students had to use English or their first languages to communicate). In particular to the path between LAD and L2NPSS, I predicted that the amount of perceived difficulties in their personal life would be positively related to the amount of support they received from those who were not their peers and those who they had to use English to communicate with. For many students who participated in the program, their instructors and the program personnel could be the only non-peer contacts they were able to form while studying abroad due to various reasons such as their limited English abilities, a lack of involvements in activities in the campus and local communities, and their accommodation arrangements.

From the four constructs representing Social Support, hypothesized paths were drawn to the two latent factors representing Degrees of Acculturation (i.e., Co-National Identification and Host-National Identification). I postulated that the amount of support

that students received in their second language, English, would positively predict degrees of identification with their host nationals, who used English as a standard means of communication, but would negatively predict degrees of identification with their co-nationals, who they could use their first languages to communicate with. On contrary, however, I assumed that the amount of support that students received in their first languages would positively predict degrees of identification with their co-nationals, but would negatively predict degrees of identification with their host-nationals. There was no path drawn from MPSS to CNI since I did not have any particular hypothesis on how interacting with friends either in L1 or L2, interchangeably, was related to their Co-National Identification. However, I hypothesized that MPSS was positively related to their HNI since (a) the location of the study, Hawai‘i, represents a variety of ethnic and linguistic backgrounds among residents (State of Hawai‘i Department of Business, Economic Development & Tourism, 2016, 2015), and (b) it is possible for students to observe residents code-switching between languages in everyday interactions and associate such a unique mix of language use with how residents in Hawai‘i, host-nationals, communicate with each other.

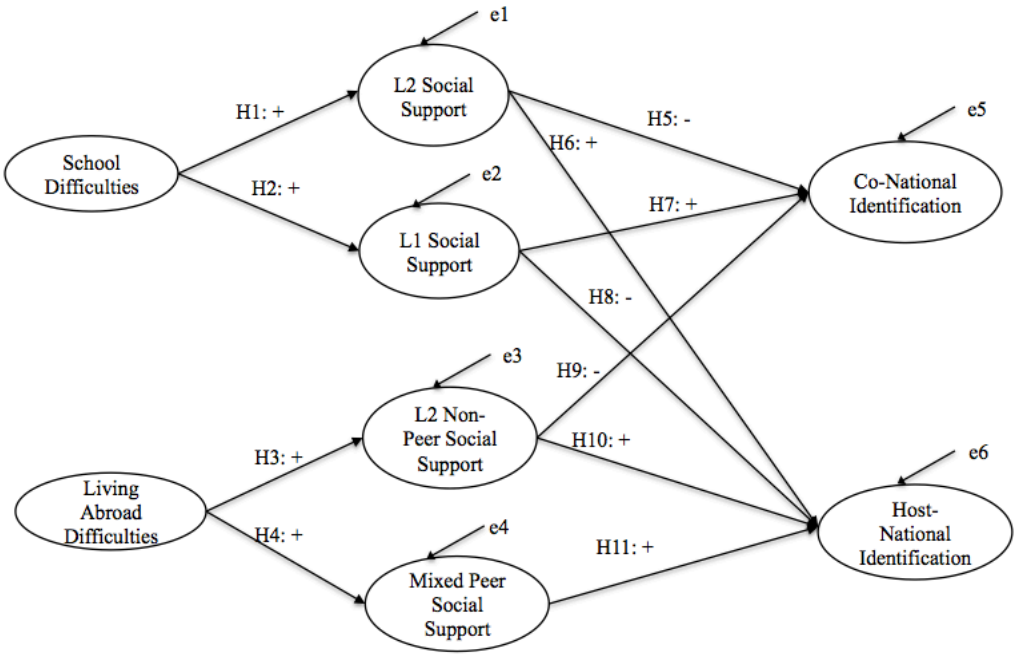

Figure 3.9 Hypothesized path model of Perceived Difficulties, Social Support, and Degrees of Acculturation

The followings are specific hypotheses regarding the paths between the latent constructs included in Figure 3.9.

Hypothesis 1: Degrees of School Difficulties that students experience positively affect the amount of L2 Social Support that students use.

Hypothesis 2: Degrees of School Difficulties that students experience positively affect the amount of L1 Social Support that students use.

Hypothesis 3: Degrees of Living Abroad Difficulties that students experience positively affect the amount of L2 Non-Peer Social Support that students use.

Hypothesis 4: Degrees of Living Abroad Difficulties that students experience positively affect the amount of Mixed Peer Social Support that students use.

Hypothesis 5: The amount of L2 Social Support that students use negatively affects degrees of their Co-National Identification.

Hypothesis 6: The amount of L2 Social Support that students use positively affects degrees of their Host-National Identification.

Hypothesis 7: The amount of L1 Social Support that students use positively affects degrees of their Co-National Identification.

Hypothesis 8: The amount of L1 Social Support that students use negatively affects degrees of their Host-National Identification.

Hypothesis 9: The amount of L2 Non-Peer Social Support that students use negatively affects degrees of their Co-National Identification.

Hypothesis 10: The amount of L2 Non-Peer Social Support that students use positively affects degrees of their Host-National Identification.

Hypothesis 11: The amount of Mixed Peer Social Support positively affects degrees of their Host-National Identification.

Sources of Validity Evidence

When designing and conducting a study and interpreting findings in a study, the consideration of validity is crucial. In *The Standards for Educational and Psychological Testing*, the American Educational Research Association, American Psychological Association, and the National Council on Measurement in Education (2014) stated that validity is "a unitary concept" (p. 14) instead of looking at the notion of validity as being made of distinct types of validity. In other words, validity can be also viewed as the extent to which all the accumulated evidence supports the intended interpretation of collected responses by an instrument. Therefore, the validation process "involves accumulating relevant evidence to provide a sound scientific basis for the proposed score interpretation (AERA et al., 2014, p. 11). I will describe what sort of validity evidence I

observed in the process of developing and administering the scales and analyzing responses collected by the scales.

First of all, it is important to identify constructs to be measured. For example, in order to determine the content domain, my domain search began with interviewing and conducting a focus group with several ESL students, who were similar to the sample of participants that I enlisted for this study. By taking a qualitative approach to define the content domain for Perceived Difficulties and Social Support, I was able to uncover some common themes that ESL students tended to experience while studying abroad. Reviews on the relevant literature also led me to confirm what I had found earlier by conducting interviews and a focus group as well as to find out other information that had not been identified previously, such as perceived difficulties in maintaining their immigration visa statuses, and concerns for their lives after completing their study abroad experiences.

Second, when it came to developing the scales, I decided to create my own scales for Perceived Difficulties and Social Support. It would have been easier if there had been well-established scales published by other researchers. However, as I mentioned earlier in this chapter, some scales that I found in the literature search and closely examined did not fit well with my specific needs in terms of the content addressed by items, the appropriateness of the English language used, and types of participants from which those scales were designed to elicit responses. Thus, I designed my Perceived Difficulties and Social Support scales in order to make the language level appropriate for this particular sample of participants, and make items in the scales relevant to the specific research questions for this study. Moreover, I included open-ended questions for each of the scales so that students could provide some insights on issues related to difficulties and

sources of social support during their study abroad periods, which were not addressed by my items in the scales but would lead to a better understanding of their experiences. Having open-ended questions has also helped me reduce possibilities of construct underrepresentation, that is, "the degree to which [an instrument] fails to capture important aspects of the construct" (AERA et al., 2014, p. 12).

While I created the scales for Perceived Difficulties and Social Support from scratch for this study, I adapted the Acculturation Index. It had been commonly used by acculturation researchers in the field and had indicated sound evidence for its validity such as high reliability and strong predictive validity (Ward & Kennedy, 1994, p. 337), which itself provided some assurance that responses elicited by this scale would be reliable and valid. In order to make it accessible to my participants, I made some minor changes in terms of wording and types of activities. Such special attention to words and phrases used in the items for all the scales was particularly important for my ESL participants. If students had had to complete the scales without any considerations regarding their proficiency in English (i.e., vocabulary knowledge), their responses might have been greatly affected by processes that are not relevant to the objectives of the scales. It would have threatened the validity of the responses elicited. This threat to the validity is known as construct-irrelevance (AERA et al., 2014, p. 12).

Third, I conducted a pilot study with the three scales. By administering the scales with students in the same location where the current sample of participants would be recruited, I was able to directly observe how students with different levels of English proficiency could handle the scales, what questions they might have, and how long it would take them to complete the scales. Although the sample size for the pilot phase was

very small (i.e., 40), I checked the reliability coefficients for the items included in the scales. For those with low reliability coefficients in the Perceived Difficulties and Social Support scales, I made further modifications of the items so that participants could respond to them more consistently. Moreover, as for the Acculturation Index, I revised some wording of items so that the language would be accessible to the sample group of participants and used a 6-point Likert scale to match with the other two scales. Triangulating comments on the scales (i.e., from students, other teachers who worked with the students in the program, and professors who were not necessarily in the field of ESL but had more experiences in conducting research and creating survey instruments) was extremely useful and important in this process. The revisions of items were very iterative in nature.

Fourth, given that the data collection was conducted with all students enrolled in the program in three different terms, I paid great attention to how I would prepare other teachers in the program in respect to when and how to administer the scales in their classes. In each term for data collection, I spent some time with a group of teachers who were going to give the survey scales to students for this study and explained to them how I would like them to administer them in their classes to ensure that data collection in each class would be conducted consistently across different levels and classes.

I carried out these steps carefully to improve the validity of the instruments I used for the study. Both distortions in meaning due to misrepresented constructs and inconsistencies in different aspects of measurement such as scale format, data collection conditions, or the level of English used in the scales, would threaten possible interpretations of the results for this study (AERA et al., 2014, p. 13). From starting with

a qualitative approach to identify the domain of the content focused by my scales to iteratively revising the items in the scales and collecting data from the participants with the scales, all I did have became relevant pieces of validity evidence in this study. Similar steps for the instrument validation were suggested in other fields of study (e.g., Artino, La Rochelle, Dezee, & Gehlbach, 2014; Cudaback, 2009; Evergreen, Gullickson, Mann, & Welch, 2011).

Lastly, as for sources of validity evidence for the data collected with the scales, it is necessary to examine the internal structure of each scale. For this, a researcher can look at correlation coefficients among responses for observed items first (i.e., the actual items in scales that participants are asked to respond to) and then utilize factor analysis to explore and confirm an internal factor structure for each scale and make sure that the internal factor structure obtained is indeed interpretable and reasonable according to theories and conceptual frameworks. Since I did not have any prior underlying theories on how items in the Perceived Difficulties and Social Support scales were represented, it was appropriate for me to conduct EFA to find out how many factors, latent variables, were measured in each scale, and then I moved onto CFA to illustrate how latent variables were accounted for by observed variables. In respect to the Acculturation Index, this scale was based on the assumption that it represents two different dimensions (i.e., host-national identification and co-national identification), so I could have conducted CFA without doing EFA. However, in this study, starting with EFA on the Acculturation Index, as was the case with the other two self-developed scales, seemed reasonable because I had made changes in the language used in the adapted version to make it more accessible to the participants in this study. In addition, the participants for

this study were different from those in the previous studies that had utilized the Acculturation Index (e.g., Brisset et al., 2010; Playford & Safdar, 2007; Tadmor et al., 2009; Ward, 1999; Ward & Rana-Deuba, 1999, 2000). This was another reason why I decided to conduct EFA and CFA to examine how each latent variable in the Acculturation Index (i.e., host-national identification and co-national identification) was accounted for by certain observed variables.

With regard to evidence based on relations to other variables, examining the degree of internal consistency (reliability) would be useful. Within each latent variable, a Cronbach alpha statistic was calculated based on standardized items. The reliability coefficients ranged from .69 to .95, as presented in Table 3.9. The one for L1SS was lower than the others. For the purpose of this research, however, reliability was acceptable.

Table 3.9

Reliability Coefficients for Latent Factors

Scale	Latent Factor	Number of Indicator Variables	Cronbach Alpha (Standardized)
Perceived Difficulties	Perceived Difficulties in School	7	.95
	Living Abroad Difficulties	6	.89
Social Support in School	L2 Social Support	4	.79
	L1 Social Support	3	.69
Social Support in Personal Life	L2 Non-Peer Social Support	3	.88
	Mixed Peer Social Support	4	.73
Acculturation Index	Co-National Identification	5	.83
(Degrees of Acculturation)	Host-National Identification	6	.80

Summary

This chapter has described the location for this study, the participants, the instruments, the pilot study, the procedure of data collection, and data analysis including the validation process of the survey scales used for the study. In lieu of the results from

the validation process of the survey scales, I revisited the initial SEM model and revised it and accompanying hypotheses accordingly. Moreover, I listed various sources of validity evidence in the light of the notion that validity is a unitary concept.

CHAPTER 4: RESULTS

There were three main purposes of the present study. One objective was to identify perceived difficulties that international students face as well as social support resources they utilize to deal with difficulties. The second aim was to explore relationships among Perceived Difficulties, Social Support, and Degrees of Acculturation. The last but equally important objective of the study was to develop and find validity evidence for the survey scales. Since examining validity evidence for the survey scales was crucial in preparing the data set for analyses as well as reviewing the initial hypotheses along with research questions in Chapter 2, I discussed the information about how each survey scale was examined for validity evidence in depth in the previous chapter.

This chapter is structured in the following manner. First, I will provide the descriptive statistics as well as participants' comments for each scale included in my survey instrument: Perceived Difficulties in School and in Personal Life, Social Support resources in School and in Personal Life, and the Acculturation Index. I will use these pieces of information to address Research Questions 1 and 2. Second, I will address Research Question 3 by utilizing structural equation modeling (SEM) to examine potential pathways between the latent variables of my interests.

Perceived Difficulties

When asked about degrees of difficulties that students perceive in their school lives in a scale of 0 (*never*) to 5 (*always*), the averages of perceived difficulties ranged from 3.05 for "*working toward my future plans*" (PD1m) to 2.51 for "*getting used to university campus life*" (PD1i), as presented in Table 4.1. In addition, while 2.50 on the

6-point Likert scale was the midpoint, all the items for Perceived Difficulties in School had a mean of 2.50 or higher.

Table 4.1

Descriptive Statistics for Perceived Difficulties in School

"I worry about the following areas ***in my school life***." Scale Item (in descending order)	*M*		*SD*
	Statistic	Std. Error	
Working toward my future plans (PD1m)	3.05	0.11	1.45
Taking tests or quizzes (PD1h)	3.00	0.13	1.72
Communicating with teachers in English (PD1b)	2.96	0.13	1.75
Doing group work in class (PD1f)	2.86	0.12	1.70
Making friends (PD1k)	2.85	0.13	1.74
Participating in class	2.75	0.13	1.81
Communicating with other students in English (PD1a)	2.74	0.10	1.40
Doing homework (PD1g)	2.73	0.14	1.85
Keeping relationships with others (PD1l)	2.71	0.13	1.79
Getting feedback from teachers to improve my English ability (PD1c)	2.66	0.12	1.57
Following school rules (attendance, class performance, language use) (PD1j)	2.55	0.14	1.86
Doing individual work in class (PD1d)	2.52	0.12	1.66
Getting used to university campus life (PD1i)	2.51	0.13	1.78

Note. Valid N=187 (listwise)

As for the open-ended question, "What else do you worry about ***in your school life***?," there were 44 students who left comments, and they accounted for 23.91% of the total number of students in the master dataset as seen in Table 4.2.

Table 4.2

Breakdowns of Comments on Perceived Difficulties in School

Categories	Count
English proficiency	14
Improvement in English	7
Working with other students	3
Not being eligible for campus activities	3
School work load	3
Future (job)	2
Not having enough opportunities to make local friends	2
Class assignments	2
Taking a standardized test	2
Interpersonal relationships in school	2
Money	2
One's attitude toward speaking English	2
One's family situation	2
School rules	2
Getting around on campus	1
Meeting others	1
Using English	1
Having a lack of opportunities to get closer to teachers	1
Making friends	1
Applying for an advanced degree program	1
School curriculum	1
Grades	1
Total	56

Some comments regarding school rules and working with other students overlap with some of the items covered in the survey scale. First, out of 56 comments obtained, 14 students expressed concerns about their English proficiency. These comments on their English proficiency could further be grouped into general English proficiency (8), pronunciation (4), vocabulary (1), and grammar (1). Some comments related to English proficiency were: "Because of my communication skills in English, sometimes it is hard to do anything." (ID #74, Japanese, female); "In case of communicating with other people, I usually feel comfortable in my school because teachers have tried to listen to our different pronunciations. But I don't feel good about talking to students because of my pronunciation" (ID #216, Korean, male). Second, seven students expressed concerns about their improvement in English. Some comments included "I hope my English will

improve faster than I planned" (ID # 98, Korean, female); "I am not sure whether my English ability has been improved or not. So sometimes I wonder whether it is a waste of money or time?" (ID #136, Korean, male); "I wonder how to improve my English faster, how to improve my TOEFL score, and how to apply for a master's program in the United States" (ID #202, Chinese, female). In addition, it is noteworthy that three students made comments about not being eligible for campus activities that were designed for degree-seeking students. One Korean female student (#ID 176) wrote, "I really want to have a chance to meet UH students, not NICE students. So I tried to join a club. I thought I could make friends through the club. But it was difficult to find information about clubs and contact them." Another Korean male student (ID #18) also wrote, "We are not real UH students, so sometimes we cannot attend some programs such as a table tennis competition." Students recruited for the current study had valid immigration statuses to stay in the United States, but were not considered to be "regular" university students in the university system as the courses in the Intensive English Program they were enrolled in were not credit bearing.

With regard to degrees of difficulties that students feel in their personal lives, Table 4.3 illustrates the means ranged from 3.11 for "*working toward my future plans"* (PD2l) to 1.55 for "*living alone*" (PD2e). Coincidentally, the highest rated item for perceived difficulties was "*working toward my future plans*" in both their school and personal lives. About the half of survey items were rated higher than the midpoint on the 6-point Likert scale. However, it is noticeable that these items concerning their living and immigration circumstance while studying abroad (*i.e.*, *living with other people*, *keeping my visa status*, *living away from family in my home country*, and *living alone*) as

well as possible difficulties that they may encounter due to their foreign background (i.e., *dealing with culture shock*, and *dealing with prejudice based on my nationality*) were rated below the midpoint on the scale.

Table 4.3

Descriptive Statistics for Perceived Difficulties in Personal Life

"I worry about the following areas ***in my personal life***." Scale Item (in descending order)	*M*		*SD*
	Statistic	Std. Error	
Working toward my future plans (PD2l)	3.11	.11	1.45
Having money to support my life abroad (PD2b)	3.09	.11	1.49
Getting a job after I return to my country (PD2m)	2.98	.13	1.79
Keeping my health (PD2j)	2.85	.11	1.52
Communicating with others in English (PD2a)	2.74	.10	1.33
Making friends (PD2g)	2.58	.13	1.79
Keeping relationships with others (PD2h)	2.57	.13	1.73
Living with other people (PD2f)	2.18	.13	1.78
Keeping my visa status (PD2i)	2.10	.14	1.90
Living away from family in my home country (PD2d)	2.06	.12	1.67
Dealing with culture shock (PD2c)	2.04	.10	1.34
Dealing with prejudice based on my nationality (PD2k)	2.04	.11	1.44
Living alone (PD2e)	1.55	.12	1.64

Note. Valid N=187 (listwise)

Thirty eight students left comments for the open-ended question, "What else do you worry about **in *your personal life***?," which accounts for 20.32% of students included in the master dataset. Their responses are presented in Table 4.4.

Table 4.4

Breakdowns of Comments on Perceived Difficulties in Personal Life

Categories	Count
Getting a job	19
Future	6
Interpersonal relationship	3
Money	4
Family	3
Going back home	2
Dealing with cultural specific remarks	1
Time available to study abroad due to immigration visa	1
Standardized test scores – TOEIC (Test of English for International Communication)	1
Getting integrated in Hawai‘i	1
His/her own accents in English	1
Improving English in the future	1
Making friends	1
Not making oneself clear to others	1
Talking with others	1
Total	46

Among 46 comments obtained regarding perceived difficulties in personal life, it was clear that finding and landing on a job in the near future was perceived as a challenge for many students. The results of the descriptive statistics in Table 4.3 indicated that students had rated concerns about "*working toward my future plans*" and "*getting a job after I return to my country*" high. One of the 19 comments about concerns regarding getting a job in the future came from a Korean female who was living in Hawai‘i as a legal permanent resident (ID # 154), and the rest came from 13 Korean students and 5 Japanese students. In addition, 5 comments about concerns regarding their future also came from 4 Korean students and 1 Japanese student. For instance, a female Korean student (ID #51) wrote, "I worry about getting a job that I want. In Korea, unemployment is serious, so many people think that everything is competitive. For this reason, I don't want to go back to Korea." A female Japanese student (ID #238) also wrote, "I don't think I will get a job easily when I go back to Japan. So I think I need to

get some certifications." Concerns about their future also seem to be related to uncertain futures after completing their study abroad periods. One student wrote, "I am not sure about my future. Should I go back to Japan? Should I stay here and continue my study?" (ID #74, Japanese, female). Another made a similar comment, " I don't know what my dream is and what I want to be. I always feel afraid of what I am going to do for a living" (ID #49, Korean, female). Although there were these two comments about concerns regarding the uncertainty upon completing their study abroad periods, the comments on concerns about going back home also appear to be relevant to the uncertainty about their future. For example, one student wrote, "I don't want to think about my life after going back to Korea. I feel very comfortable and happy here" (ID #150, Korean, male). Another wrote, "I worry about going back to my usual lifestyle when I go back to Korea" (ID #220, Korean, female).

Once overall descriptive statistics for the survey scales of Perceived Difficulties and the comments were reviewed, I decided to further examine if any of the demographic information collected along with the survey responses would make any differences in how students perceive difficulties in their schools and personal lives. The demographic information used for this part of the analyses was gender, marital status, the highest education level completed, the length of study in the program (the number of terms enrolled in the program), and age. I used independent sample t-tests for each of the demographic factors except for age. Since age was a continuous variable, I ran linear regression analyses.

First of all, when examining to what extent gender was related to degrees of difficulties that students experienced, I found no significant difference in terms of gender

for any of the difficulties listed in both school and personal life scales. In other words, this indicates that both male and female students experienced difficulties in a similar fashion.

Secondly, I found that marital status was related to degrees of difficulties more in their personal life than in their school life as presented in Table 4.5. While I found only one statistically significant difference in school life, I found four statistically significant differences in personal life. Although the numbers of students for each category were unequal, there was homogeneity of variances, as assured by Levene's test for equality of variances. Overall, single students reported experiencing more difficulties than married students, and more difficulties in personal life were evident for single students than in school life.

Table 4.5

Independent Sample T-Tests for Perceived Difficulties by Marital Status

		Single (N = 169)		Married (N = 18)				
	Perceived Difficulties	*M*	*SD*	*M*	*SD*	Levene	*t*	95% CI Mean Diff.
School	Working toward my future plans	3.17	1.38	1.94	1.70	3.40	3.50 *	[.54, 1.92]
Personal	Having money to support my life abroad	3.19	1.44	2.11	1.75	1.89	2.99*	[.37, 1.79]
	Dealing with prejudice based on my nationality	2.11	1.44	1.33	1.24	.91	2.21*	[.08, 1.47]
	Working toward my future plans	3.21	1.38	2.22	1.77	3.31	2.80*	[.29, .17]
	Getting a job after I return to my country	3.20	1.70	.94	1.31	3.05	5.47*	[1.44, 3.07]

Note. CI = confidence interval; * $p < .05$

Thirdly, I examined how their educational background could be related to degrees of difficulties. The master dataset included 112 high school graduates, 11 2-year college,

51 4-year college, 9 graduate school, and 2 others (i.e., vocational training). Among those who had completed only high school as the highest education level completed, many were enrolled in their 2-year or 4-year colleges in their home countries and were staying in dormitories with other ESL students. Therefore, I decided to divide students in the sample into two categories for the highest education level completed, high school (N = 112) and higher education (N = 75).

Table 4.6 illustrates 14 activities for which I found statistically significant differences in degrees of difficulties that students reported experiencing in their school and personal lives between those who had completed high school and those who had completed education beyond high school. As assessed by Levene's test for equality of variances, there was homogeneity of variances for all these activities, except for "*doing group work in class*" in school. For this activity, the assumption of homogeneity of variances was violated. Accordingly, the unequal variance t-test (Welch t-test) results were referred to in the SPSS output.

There were 10 activities that those with high school educations reported higher degrees of difficulties in school than those with higher education, and there were also four activities that those with high school education experienced more difficulties in personal life than those with education beyond high school.

Table 4.6

Independent Sample T-Tests for Perceived Difficulties by Highest Education Completed

		High School (N = 112)		Higher Ed (N = 75)				95% CI
	Perceived Difficulties	*M*	*SD*	*M*	*SD*	Levene	*t*	M. Diff.
School	Getting feedback from teachers to improve my English ability	2.88	1.49	2.33	1.64	2.73	2.38*	[.09, 1.01]
	Participating in class	3.02	1.76	2.35	1.83	0.73	2.52*	[.15, 1.20]
	Doing individual work in class	2.77	1.59	2.15	1.70	0.67	2.55*	[.14, 1.10]
	Doing group work in class	3.15	1.55	2.41	1.83	8.26*	2.87*	[.23, 1.25]
	Doing homework	2.99	1.77	2.35	1.90	1.15	2.37*	[.11, 1.18]
	Getting used to university campus life	2.88	1.70	1.95	1.75	0.02	3.65*	[.43, 1.44]
	Following school rules	2.89	1.79	2.03	1.85	0.07	3.20*	[.33, 1.40]
	Making friends	3.17	1.64	2.37	1.78	1.31	3.14*	[.30, 1.30]
	Keeping relationships with others	2.97	1.75	2.31	1.79	0.81	2.53*	[.15, 1.19]
	Working toward my future plans	3.24	1.38	2.77	1.52	1.61	2.18*	[.04, .89]
Personal	Living with other people	2.46	1.81	1.76	1.67	1.48	2.66*	[.18, 1.21]
	Making friends	2.82	1.74	2.23	1.81	.18	2.26*	[.08, 1.12]
	Keeping relationships with others	2.82	1.67	2.19	1.75	0.28	2.50*	[.13, 1.14]
	Getting a job after returning to my country	3.21	1.73	2.65	1.83	1.2	2.09*	[.03, 1.07]

Note. CI = confidence interval; * $p < .05$

Fourthly, I examined to what extent the length of study in the program was related to degrees of difficulties that students reported experiencing. As discussed in the Methods chapter, the number of terms that students enrolled in the program ranged from one to eight with an average of 1.53 (*SD* = 1.16), and 76.6 % of students in the dataset enrolled in the program for only one term. The program offers four 10-week terms a year. There were 38 students who enrolled in the program in a range of two to four terms, and 6 students ranging from five to eight terms. For the purpose of this analysis, I combined students who had enrolled in the program for two terms or longer (N = 44), and compared means of perceived difficulties responses of this group to those of students who had stayed in the program for only one term (N = 143).

Table 4.7 shows one statistically significant difference between those who had completed one term and those who had completed two or more terms. While there was no significant difference in degrees of difficulties in school in terms of the length of study in the program, I found that students who had studied for two terms or longer perceived "*keeping my visa status*" (PD2i) more difficult in personal life than those who had studied only for one term. There was homogeneity of variances as assessed by Levene's test for equality of variances.

Table 4.7

Independent Sample T-Test for Perceived Difficulties by Length of Study

		One Term (N = 143)		Longer Terms (N = 44)				
	Perceived Difficulties	*M*	*SD*	*M*	*SD*	Levene	*t*	95% CI M. Diff.
Personal	Keeping my visa status	1.91	1.82	2.73	2.05	2.80	-2.54*	[-1.46, -.18]

Note. CI = confidence interval; * $p < .05$

Lastly, I ran linear regressions to understand the effect of students' ages on degrees of difficulties that students perceive in their school and personal lives. I found one significant linear relationship in terms of age in school life and two in personal life.

In school life, I found that age of students significantly predicted degrees of difficulties that students experienced for "*working toward my future plans*" (PD1m), $F(1, 185) = 8.06$, $p < .05$, with $R^2 = .042$ (accounting for 4.2% of the variation in degrees of difficulties for "*working toward my future plans*") and adjusted $R^2 = .037$. The regression equation obtained was: "*working toward my future plans*" = 3.88 + (-.031)*age. As students' age increases by one, degrees of their difficulties for "*working toward [their] future plans*" decrease by .03.

In personal life, I found that age significantly predicted degrees of difficulties for "*living with other people*" (PD2f), $F(1, 185) = 5.82$, $p < .05$, with $R^2 = .031$ and adjusted

R^2 = .025. Age also significantly predicted degrees of difficulties for "*getting a job after I return to my country*" (PD2m), $F(1, 185) = 23.56$, $p < .05$, with R^2 = .113 and adjusted R^2 = .108. The regression equations obtained were: "*living with other people*" = 3.04 + (-.032)*age, "*getting a job after I return to my country*" = 4.65 + (-.062)*age. As students' ages increase by one, degrees of their difficulties for "*living with other people*" decrease by .03, and those for "*getting a job after [they] return to [their countries]*" also decrease by .06.

These results about effects of age on degrees of difficulties suggest that as students age, they experience fewer degrees of difficulties for working toward their future plans in their school life and fewer degrees of difficulties for living with others as well as getting a job upon returning to their home countries.

Social Support

When it comes to the actual use of social support resources in school, they seem to rely on immediate friends they see in school every day regardless of their native language as seen in Table 4.8. Also, "*teachers at school*" (SS3a) was the third highest rated item, and teachers were another type of individuals that they see every day in school. The other two items rated above the midpoint of the 6-point Likert scale were "*friends or family in my country*" (SS3o) and "*friends outside school who speak my native language*" (SS3d). Both types share the common characteristic in that students could get support from those individuals while using their native languages. However, those individuals may not have a full understanding of what circumstances students are in and the severity of difficulties that students are encountering.

Table 4.8

Descriptive Statistics for Social Support in School

"When I have difficulties ***in my school life***, I ***receive*** help or advice from the following people." Scale Item (in descending order)	N	*M*		*SD*
		Statistic	Std. Error	
Friends in school who speak my native language (SS3d)	187	3.13	.11	1.49
Friends or family in my country (SS3o)	187	3.11	.12	1.69
Teachers at school (SS3a)	186	3.09	.11	1.51
Friends in school who speak different native languages (SS3e)	187	2.78	.10	1.42
Friends outside school who speak my native language (SS3f)	187	2.50	.13	1.77
Office staff (SS3c)	187	2.20	.11	1.50
Friends outside school who speak different native languages (SS3g)	187	2.13	.12	1.58
Host family or roommates who speak my native language (SS3j)	187	1.99	.15	2.02
The program director or academic coordinator (SS3b)	187	1.82	.12	1.59
Relatives or family in Hawai‘i who speaking my native language (SS3h)	187	1.48	.14	1.86
Neighbors who speak different native languages (SS3m)	187	1.41	.12	1.70
Neighbors who speak my native language (SS3l)	187	1.36	.12	1.68
Relatives or family in Hawai‘i who speak different languages (SS3i)	187	1.23	.12	1.62
Host family or roommates who speak different native languages (SS3k)	187	1.17	.12	1.61
Counselors (SS3n)	187	.79	.10	1.31

Note. Valid N=186 (listwise)

The other two types of support resource people students can go to at school (i.e., *office staff*, and *the program director or academic coordinator*) were not rated as high as *teachers* they see in class. Although students attend classes every day, it requires an extra effort to come in to the program office and discuss their problems and concerns with those individuals who remain in the office most of the time. In addition, students do not seem to reach out to those who are not immediately available in school in order to deal with difficulties they have faced at school.

Table 4.9 shows categories and the numbers of responses to the open-ended question, "from whom else do you receive help/advice when you have difficulties ***in your school life*** in Hawai‘i?" Although the total number of comments collected was much smaller than those for perceived difficulties, the use of the Internet sources in the same native language was pointed out. Moreover, two other types of resource people sharing

the same native language were also pointed out, friends at a dormitory, and friends back home. Regarding friends back home as a social support resource, one student wrote, "I ask my friends who are living in Korea. They are accustomed to advising about the NICE Program because they had participated in the program before" (ID #226, Korean, male). Not only sharing the same native language but also participating in the same study abroad program in Hawai'i appear to be helpful when students seek for help or advice about their school life. One student (ID #202, Chinese, female) noted that she talked to an Interchanger, who is a regular university student who is hired to serve as an English conversation partner in the program's curriculum. Since Interchangers meet students twice a week during the instructional hours and continue to work with them for 9 weeks every 10-week term, they may be a good source of information when students have questions about school life.

Table 4.9

Breakdowns of Comments on Social Support in School

Categories	Count
Internet (the same native language)	2
Program office staff	2
Local friends	2
Local boyfriend	1
Teachers	1
Interchanger	1
Friends	1
Friends at a dormitory (the same native language)	1
Friends back home (former program students, the same native language)	1
	TOTAL 12

As for the use of social support in their personal life, those who speak the same native language [i.e., *friends or family in my country* (SS4o), *friends in school who speak*

my native language (SS4d), *friends outside school who speak my native language* (SS4f)] were sought for by students to deal with their difficulties in their personal lives (see Table 4.10).

Table 4.10

Descriptive Statistics for Social Support in Personal Life

"When I have difficulties ***in my personal life***, I ***receive*** help or advice from the following people."	*M*		*SD*
Scale Item (in descending order)	Statistic	Std. Error	
Friends or family in my country (SS4o)	3.52	.12	1.57
Friends in school who speak my native language (SS4d)	3.18	.12	1.65
Friends outside school who speak my native language (SS4f)	2.70	.13	1.75
Friends in school who speak different native languages (SS4e)	2.35	.12	1.59
Teachers at school (SS4a)	2.22	.12	1.64
Friends outside school who speak different native languages (SS4g)	2.19	.12	1.68
Host family or roommates who speak my native language (SS4j)	1.90	.14	1.97
Relatives or family in Hawai'i who speak my native language (SS4h)	1.53	.14	1.92
Neighbors who speak my native language (SS4l)	1.35	.12	1.68
Host family or roommates who speak different native languages (SS4k)	1.35	.13	1.72
Office staff (SS4c)	1.35	.11	1.50
The program director or academic coordinator (SS4b)	1.34	.11	1.52
Neighbors who speak different native languages (SS4m)	1.26	.12	1.59
Relatives or family in Hawai'i who speak different native languages (SS4i)	1.24	.13	1.72
Counselors (SS4n)	.80	.10	1.34

Note. Valid N=187 (listwise)

For the open-ended question, "from who else do you receive help/advice when you have difficulties ***in your personal life*** in Hawai'i" only a small number of students left their comments as presented in Table 4.11. Even from this small number of responses, it is easily noticeable that students rely on those who share the same native language.

Table 4.11

Breakdowns of Comments on Social Support in Personal Life

Categories	Count
Dorm manager (the same native language)	2
Friends at a dorm (the same native language)	2
Classmates (the same native language)	1
Parents (the same native language)	1
Internet (the same native language)	1
Internet	1
TOTAL	8

Since the Social Support items both in school life and personal life were the same, I conducted paired sample t-tests to compare the use of social support between in their school and personal life by using the 15-item pairs. I set an alpha level of .05 for all statistical tests in this study. However, I applied the Bonferroni adjusted levels of .003 per test (.05/15) for this case. Results indicated that there were five sources that students use differently in a statistically significant manner. For instance, there were statistically significant differences in the responses for the following five pairs of items: "*teachers at school*" to deal with difficulties in their school life (M = 3.09, SD = 1.50) and in personal life ($M = 2.22$, $SD = 1.64$), $t(185) = 8.15$*, $p < .05$; "*the program director or academic coordinator*" in school life ($M = 1.82$, $SD = 1.59$) and in personal life ($M = 1.34$, $SD = 1.52$), $t(186) = 5.04$*, $p < .05$; "*office staff*" in school life ($M = 2.20$, $SD = 1.50$) and in personal life ($M = 1.35$, $SD = 1.50$), $t(186) = 8.74$*, $p < .05$; "*friends in school who speak different native languages*" in school life ($M = 2.78$, $SD = 1.41$) and in personal life ($M = 2.35$, $SD = 1.59$), $t(186) = 4.23$*, $p < .05$; "*friends or family in my country* in school life" ($M = 3.11$, $SD = 1.69$) and in personal life ($M = 3.52$, $SD = 1.57$), $t(186) = -3.95$*, $p < .05$. These results suggest that students seek teachers and administrative personnel (i.e., the

program director and academic coordinator, and office staff) when dealing with their school-related difficulties more often than when dealing with those related to their personal life. Moreover, when dealing with school-related difficulties, students also go to friends in school who speak different native languages more often than when dealing with personal difficulties. However, when it comes to dealing with personal life-related difficulties, they seek help from friends or family in their home countries more often than when dealing with school difficulties.

The next section will describe a set of follow-up analyses I decided to conduct in order to explore to what extent the demographic factors of the students (gender, marital status, the highest education level completed, the length of study in the program, and age) were related to the use of social support in school and personal settings, as I had done with the data for Perceived Difficulties.

First, I examined how gender could predict the use of social support in school and personal settings by running independent sample t-tests, and found one statistically significant difference as presented in Table 4.12. The result of Levene's test for equality of variance for "*friends outside school who speak different native languages*" (SS3g) in school indicated that the assumption of homogeneity of variances was violated. Therefore, the unequal variance t-test result was referred to in the SPSS output. This result suggests that gender predicts a statistically significant difference in the use of "*friends outside school who speak different native languages*" in school, and that male students reach out to "*friends outside school who speak different native languages*" more than female counterparts.

Table 4.12

Independent Sample T-Test for Social Support by Gender

		Male (N = 48)		Female (N = 139)				
	Social Support	M	SD	M	SD	Levene	*t*	95% CI M. Diff.
School	Friends outside school who speak different native languages	2.60	1.77	1.96	1.48	5.60*	2.25*	[.07, 1.21]

Note. CI = confidence interval; * $p < .05$

Second, I examined how marital status was related to the use of social support in school and personal life. The results of independent t-tests indicated two statistically significant differences in the use of social support in terms of marital status, "*neighbors who speak my native languages*" (SS3l) and "*friends in school who speak my native language*" (SS4d), as presented in Table 4.13. In the school setting, I found that single students obtained more support from "*neighbors who speak [their] native languages*" than married students. Since the assumption of homogeneity of variances was violated, the unequal variance t-test result was referred to. In personal life, single students received more support from "*friends in school who speak [their] native language*" more than married students.

Table 4.13

Independent Sample T-Tests for Social Support by Marital Status

		Single (N = 169)		Married (N = 18)				
	Social Support	*M*	*SD*	*M*	*SD*	Levene	*t*	95% CI M. Diff.
School	Neighbors who speak my native language	1.42	1.73	0.83	.92	17.46*	2.30*	[.07, 1.11]
Personal	Friends in school who speak my native language	3.28	1.63	2.22	1.48	1.06	2.63*	[.26, 1.85]

Note. CI = confidence interval; * $p = < .05$

Third, I examined how their educational background could predict degrees of difficulties. As was done when examining the effect of educational background on

degrees of perceived difficulties, I used the same two categories for the highest education level completed, high school (N = 112) and higher education (N = 75).

Table 4.14 illustrates the results of independent sample t-tests for the use of social support by the highest education level completed. I found that a total of six statistically significant differences between those who had completed high school and those who had completed education beyond high school. As for "*host family or roommates who speak my native language*" (SS3j) and "*host family or roommates who speak my native language*" (SS3l), the results of the Levene's test for equality of variances indicated that the assumption of homogeneity of variances was violated for those sources of social support. Therefore, the unequal variance t-test results were referred to in the SPSS output. The other four significant differences were for "*friends or family in my country*" (SS3o) in school, and "*friends in school who speak my native language*" (SS4d), "*host family or roommates who speak my native language*" (SS4j), and "*host family or roommates who speak different native languages*" (SS4k) in personal life. Generally speaking, those who had completed high school education received more support to deal with difficulties from those six sources of social support than those who had completed education beyond the high school level.

Table 4.14

Independent Sample T-Tests for Social Support by Highest Education Completed

		High School (N = 112)		Higher Ed (N = 75)				
	Social Support	*M*	*SD*	*M*	*SD*	Levene	*t*	95% CI M. Diff.
School	Host family or roommates who speak my native language	2.61	2.02	1.08	1.66	11.92*	5.65*	[.99, 2.06]
	Neighbors who speak my native language	1.65	1.80	.93	1.38	15.50*	3.08*	[.26, 1.18]
	Friends or family in my country	3.32	1.65	2.79	1.71	.31	2.14*	[.04, 1.03]
Personal	Friends in school who speak my native language	3.46	1.53	2.75	1.73	1.48	2.66*	[.18, 1.21]
	Host family or roommates who speak my native language	2.29	2.03	1.32	1.74	.28	2.50*	[.13, 1.14]
	Host family or roommates who speak different native languages	1.11	1.53	1.72	1.92	1.20	2.09*	[.03, 1.07]

Note. CI = confidence interval; * $p < .05$

Fourth, I examined to what extent the length of study in the program predicted the use of social support. For the purpose of this analysis, I compared means of students who had stayed in the program for only one term (N = 144) to those of students who had enrolled in the program for two terms or longer (N = 43), as it was done in the section for Perceived Difficulties.

Among a total of nine statistically significant differences found in the use of social support in terms of the length of study at the program as presented in Table 4.15, all but two, "*relatives or family in Hawai'i who speak different languages*" (SS3i) and "*friends outside school who speak different native languages*" (SS4g), met the assumption of homogeneity of variances. For these two items which violated the assumption of homogeneity of variances, the unequal variance t-test results were referred to in the SPSS output.

Table 4.15

Independent Sample T-Tests for Social Support by Length of Study

		One Term (N = 143)		Longer Terms (N =44)				
	Social Support	M	SD	M	SD	Lev.	*t*	95% CI M. Diff.
School	Friends outside school who speak my native language	2.29	1.78	3.18	1.59	2.80	-2.97*	[-1.48, -.30]
	Friends outside school who speak different native languages	1.92	1.57	2.80	1.46	.47	-3.28*	[-1.40, -.35]
	Relatives or family in Hawai‘i who speak different native languages	1.04	1.47	1.84	1.98	11.71*	-2.54*	[-1.43, -.17]
	Host family or roommates who speak my native language	2.18	2.03	1.39	1.90	2.33	2.31*	[.12, 1.48]
	Neighbors who speak different native languages	1.25	1.62	1.93	1.86	2.94	-2.36	[-1.25, -.11]
Personal	Friends outside school who speak my native language	2.53	1.77	3.23	1.60	1.47	-2.33*	[-1.28, -.11]
	Friends outside school who speak different native languages	2.04	1.73	2.68	1.44	5.25*	-2.45*	[-1.16, -.12]
	Neighbors who speak my native language	1.19	1.64	1.89	1.72	.42	-2.45*	[-1.26, -.14]
	Neighbors who speak different native languages	1.07	1.51	1.86	1.69	.97	-2.96*	[-1.32, -.27]

Note. CI = confidence interval; Lev.= Levene; * p = < .05

In dealing with difficulties at school, students who had completed the program for two terms or longer reported receiving more support from "*friends outside school who speak my native language*" (SS3f), "*friends outside school who speak different native languages*" (SS3g), "*relatives or family in Hawai‘i who speak different native languages*" (SS3i), and "*neighbors who speak different native languages*" (SS3m) than those who had completed the term only once. Similarly, students with the longer length of study in the program reported receiving more support from "*friends outside school who speak my native language*" (SS4f), "*friends outside school who speak different native languages*" (SS4g), "*neighbors who speak my native language*" (SS4l), and "*neighbors who speak*

different native languages" (SS4m) than those with only one term of study in the program. However, for support from "*host family or roommates who speak my native language*" (SS3j), I found that students with only one term of study in the program reported receiving more support than those with more terms in the program.

Lastly, I ran linear regression analyses to explore the effect of age on the use of social support. The results of linear regression analyses pointed a total of six significant linear relationships in terms of age, two in school life and four in personal life.

In school life, I found that age of students significantly predicted the use of social support from "*host family or roommates who speak my native language*" (SS3j), $F(1, 185) = 16.97^*$, $p < .05$, with $R^2 = .084$ (accounting for 8.4% of the variation in the use of social support from "*host family or roommates who speak my native language*") and adjusted $R^2 = .079$. In addition, age significantly predicted the use of social support from "*friends or family in my country*" (SS3o), $F(1, 185) = 5.53^*$, $p < .05$, with $R^2 = .029$ and adjusted $R^2 = .024$. The regression equations obtained were: "*host family or roommates who speak my native language*" = 3.62 + (-.061)*age, and "*friends or family in my country*" = 3.90 + (-.030)*age. As students' ages increase by one, the use of social support from "*host family or roommates who speak [their] native [languages]*" decreases by .06, and that from "*friends or family in [their countries]*" also decreases by .03 on the six-point scale of 0 to 5.

In personal life, I found there were four significant linear relationships of age on the use of social support. Age of students significantly predicted the use of social support from "*friends in school who speak my native language*" (SS4d), $F(1, 185) = 8.54^*$, $p <$

.05 with R^2 = .044 and adjusted R^2 = .039, "*friends in school who speak different native languages*" (SS4e), $F(1, 185) = 6.74^*$, $p < .05$, with R^2 = .035 and adjusted R^2 = .030, "*Host family or roommates who speak my native language*" (SS4j), $F(1, 185) = 13.41^*$, $p < .05$, with R^2 = .068 and adjusted R^2 = .063, "*friends or family in my country*" (SS4o), $F(1, 185) = 12.33^*$, $p < .05$, with R^2=.062 and adjusted R^2 = .057. The four regression equations obtained were: "*friends in school who speak my native language*" = 4.13 + (-.036)*age, "*friends in school who speak different native languages*" = 3.18 + (-.031)*age, "*Host family or roommates who speak my native language*" = 3.32 + (-.053)*age, and "*friends or family in my country*" = 4.61 + (-.041)*age. As students' age increases by one, the use of support from "*friends in school who speak [their] native [languages]*," "*friends in school who speak different native languages*," "*Host family or roommates who speak [their] native [languages]*," and "*friends or family in [their countries]*" decreases by .04, .03, .05, .04 on the six-point scale of 0 to 5, respectively.

Overall, the results about effects of age on the use of social support suggest that as students age, they utilize less amount of social support in dealing with difficulties both in school and personal life from host family or roommates who speak their native languages as well as their friends or family in their home countries. In addition, the results also indicate that as they age, they receive less amount of social support in dealing with difficulties in personal life from friends in school who speak their native languages and different native languages.

Degrees of Acculturation

Below are the descriptive statistics for degrees of acculturation measured by the Acculturation Index. As it was the case with the previous two sections on perceived

difficulties and social support resources, participants responded to different items on the 6-point Likert scale ranging from 0 (not similar at all) to 5 (very similar). Tables 4.16 and 4.17 illustrate how students studying abroad in the United States identified themselves with those who were from the same home country (i.e., co-national identification), and how they identified themselves with those who were from the United States (i.e., host-national identification).

Table 4.16

Descriptive Statistics for Co-National Identification

"Are your experience and behaviors ***in the United States*** similar to ***those of people from your home country***?"	*M*		*SD*
Scale Item (in descending order)	Statistic	Std. Error	
Friendships	3.32	.10	1.30
How you think about people in your home country	2.95	.10	1.31
General knowledge, what you know about things in general	2.94	.09	1.17
Clothing, what you wear	2.92	.10	1.35
Food, what you eat	2.84	.10	1.41
Material comfort, standard of living	2.82	.09	1.26
Values, what is important to you	2.82	.10	1.33
Self-identify, idea about who you are	2.78	.09	1.19
Religious ideas/beliefs	2.76	.10	1.29
Communication styles	2.76	.10	1.42
Accommodation, where and how you live	2.74	.10	1.34
Cultural activities that you participate	2.73	.10	1.31
How you think about the world	2.72	.09	1.19
Activities that you do in free time	2.69	.10	1.40
Social customs, behaviors, manners	2.69	.10	1.34
How you think about Americans in this country	2.64	.09	1.18
What political ideas you have	2.61	.09	1.28
School activities that you participate	2.60	.10	1.30
Pace of life, how you pace your daily activities	2.58	.10	1.35
Language	2.33	.14	1.91

Note. Valid N=185 (listwise)

A mid-point being 2.50 on the 6-point scale, all the items except the one on *language* were rated higher than the mid-point of 2.50 for co-national identification. A Cronbach's alpha reliability score for items measuring Co-National Identification was .94 based on a total of 185 valid cases out of 187 using all the 20 items included in the scale. In Ward and Kennedy (1994, p.337), the reliability score was .93. As was done in the

previous studies using the Acculturation Index, a total score for Co-National Identification for each participant was calculated, which ranged from 0 to 100.

Table 4.17

Descriptive Statistics for Host-National Identification

"Are your experience and behaviors ***in the United States*** similar to ***those of Americans in this country***?" Scale Item (in descending order)	*M*		*SD*
	Statistic	Std. Error	
Friendships	3.03	.10	1.34
Values, what is important to you	2.61	.09	1.23
General knowledge, what you know about things in general	2.59	.08	1.07
Communication styles	2.58	.10	1.39
School activities that you participate	2.56	.09	1.19
Self-identify, idea about who you are	2.55	.09	1.18
How you think about the world	2.54	.09	1.18
Material comfort, standard of living	2.53	.08	1.10
How you think about Americans in this country	2.50	.08	1.09
Accommodation, where and how you live	2.49	.09	1.23
Food, what you eat	2.47	.09	1.24
How you think about people in your home country	2.47	.09	1.17
Pace of life, how you pace your daily activities	2.46	.09	1.18
Cultural activities that you participate	2.42	.09	1.23
Clothing, what you wear	2.38	.09	1.25
Social customs, behaviors, manners	2.38	.09	1.28
Activities that you do in free time	2.37	.09	1.26
Religious ideas/beliefs	2.30	.09	1.26
What political ideas you have	2.30	.09	1.23
Language	1.95	.12	1.65

Note. Valid N=186 (listwise)

As for host-national identification, a majority of the items except for *friendships* and *language,* were rated around the mid-point of 2.50 on the 6-point scale. A Cronbach's alpha reliability score for Host-National Identification was .94 based on the 186 valid cases out of 187 using all the 20 items included in the scale while it was .96 in Ward and Kennedy (1994, p. 337). A total score for Host-National Identification for each participant, ranging from 0 to 100, was calculated.

Moreover, in order to check the dimensionalities of Co-National Identification (CNI) and Host-National Identification (HNI), the correlation between these two variables was examined. It was .33, which was significant at $p < .05$. In addition, a

paired-samples t-test indicated that the participants reported greater similarities to people from the same home country (M_{cni} = 55.25, *SD* = 18.16) than those from the host-country (M_{hni} = 49.38, *SD* = 16.88), and that this difference was statistically significant [t (184) = 3.93*, $p < .05$].

Testing the proposed path model

Based on each measurement model obtained for each survey scale, the revised hypothesized path model of Perceived Difficulties, Social Support, and Degrees of Acculturation was proposed in Figure 3.9. Circles represent latent variables. A line connecting latent variables implies existence of a hypothesized direct effect (either positive, or negative). Absence of a path between latent variables implies lack of such an effect. The hypothesized model in Figure 3.9 examined the predictors of the endogenous variables, Co-National Identification and Host-National Identification. I hypothesized that these two endogenous latent variables were predicted by four latent variables of Social Support (L2 Social Support, L1 Social Support, L2 Non-Peer Social Support, Mixed Peer Social Support), which were also predicted by two latent variables of Perceived Difficulties (School Difficulties, and Living Abroad Difficulties). As was the case with CFAs for the individual survey scales, I used the WLSMV estimation approach because WLSMV was suited for the categorical indicator variables (Garrido et al., 2016; Li, 2016; Muthén et al., 1997).

In order to test if the proposed structural model in Figure 3.9 fit the data set, I conducted SEM with WLSMV using Mplus while referring to several fit indices to check the fit of the model. First, the Chi-square for the test of model fit was 1736.95 with a degree of freedom of 645, and this significant Chi-square value indicated that the

proposed structural model did not fit the data well. Second, RMSEA was .10 with the 90% confidence interval between .09 and .10. This was larger than the recommended value of ≤.08 for an acceptable fit. In addition, CFI was .90, and TLI was .89. A recommended value of CFI and TLI for an acceptable fit was ≥.90.

Since it seemed reasonable to improve its model fit of the proposed structural model, I moved onto making post hoc modifications based on modification indices suggested in the Mplus output. I made one modification by adding covariance between the two latent variables, L2 Social Support and L2 Non-Peer Social Support as shown in Table 4.18. Those two latent variables were made of the indicator variables measuring the use of social support from those who speak English to communicate, and it was reasonable to assume that their residuals could be correlated to some extent.

Table 4.18

Fit Indices for Structural Model

Model	Description	x^2	*df*	RMSEA [90% CI]	CFI	TLI
Initial model	Initial structural model	1736.95*	645	.10 [.09, .10]	.90	.89
Modification 1: L2SS with L2NPSS	Added covariance between items measuring the use of social support from those who speak English to communicate	1512.41*	644	.09 [.08, .09]	.92	.91

Note. CI = confidence interval; *$p < .05$

As presented in Table 4.18, the Chi-square for the modified structural model was 1512.41 with a degree of freedom of 644, which was still significant. The significant Chi-square results indicated that the modified model did not fit the data well. However, as for the other fit indices, RMSEA was .09, which was slightly larger than the recommended value of ≤.08 for an acceptable fit (Browne & Cudeck, 1993; Geiser, 2012). CFI and TLI were .92, and .91, and both of which were larger than the

recommended value of ≥.90 for an acceptable fit (Dimitrov, 2011; Hu & Bentler, 1999). Given that CFI and TLI met with the criteria for fit indices that I had set earlier, and that CFI and TLI are reported to be more accurate fit indices than RMSEA in the estimation of data dimensionality (Garrido et al., 2016), I determined that I would not make any more further modifications based on modification indices suggested in the Mplus output in order to simply improve its model fit.

The amount of variance explained by the final model for each dependent latent variable is presented in Table 4.19. The amount of variance explained by each indicator variable in the full SEM model is presented in Table 4.20. All standard errors for items included in the full model were relatively small ranging from .03 to .10. The variances explained (R^2) were moderate to large, and ranged from .29 (for L2 Social Support) to .92 (for PD2h), except for the variances explained for the two endogenous latent variables, Co-National Identification and Host-National Identification, were small (.08 and .17).

Table 4.19

Explained Variance and Standard Error of Dependent Variables in Structural Model for the SEM Model

Dependent variable	R^2	*SE*
L2 Social Support	.29**	.06
L1 Social Support	.55**	.10
L2 Non-Peer Social Support	.36**	.06
Mixed Peer Social Support	.37**	.08
Co-National Identification	.08	.07
Host-National Identification	.17	.09

Note. R^2 = explained variance; * $p < .05$, ** $p < .01$

Table 4.20

Unstandardized, Standardized, Explained Variance, and Residual Variance in Measurement Model for the SEM Model (Standard Errors in Parentheses)

Parameter estimate	Unst.	St.	R^2	Res. Var.
School Difficulties BY				
Communicating with other students in English (PD1a)	1.00 [a] (.00)	.78** (.03)	.60** (.04)	.40
Getting feedback from teachers to improve my English ability (PD1c)	1.04** (.04)	.81** (.03)	.66** (.04)	.34
Participating in class (PD1d)	1.16** (.04)	.90** (.02)	.82** (.03)	.18
Doing homework (PD1g)	1.15** (.05)	.89** (.02)	.80** (.03)	.20
Taking tests or quizzes (PD1h)	1.11** (.04)	.86** (.02)	.74** (.04)	.26
Getting used to university campus life (PD1i)	1.10** (.04)	.86** (.02)	.73** (.04)	.27
Following school rules (PD1j)	1.18** (.04)	.91** (.02)	.83** (.03)	.17
Living Abroad Difficulties BY				
Making friends (PD2g)	1.00 [a] (.00)	.93** (.02)	.86** (.03)	.14
Keeping relationships with others (PD2h)	1.03** (.02)	.96** (.01)	.92** (.03)	.08
Keeping my visa status (PD2i)	.07** (.05)	.68** (.05)	.46** (.06)	.54
Keeping my health (PD2j)	.77** (.04)	.72** (.04)	.51** (.06)	.49
Dealing with prejudice based on my nationality (PD2k)	.80** (.04)	.74** (.03)	.55** (.05)	.45
Working toward my future plan (PD2l)	.61** (.05)	.56** (.05)	.32** (.05)	.68
L2 Social Support BY				
Teachers at school (SS3a)	1.00 [a] (.00)	.75** (.04)	.56** (.06)	.44
The Program Director or Academic Coordinator (SS3b)	.99** (.09)	.74** (.05)	.55** (.07)	.45
Office staff (SS3c)	.97** (.09)	.73** (.05)	.53** (.07)	.47
Friends in school who speak different native languages (SS3e)	.90** (.08)	.67** (.05)	.45** (.07)	.55
L1 Social Support BY				
Friends in school who speak my native language (SS3d)	1.00 [a] (.00)	.60** (.07)	.36** (.09)	.64

Friends outside school who speak my native language (SS3f)	1.01** (.12)	.61** (.07)	.37** (.09)	.63
Friends or family in my country (SS3o)	1.14** (.17)	.68** (.06)	.47** (.08)	.53
L2 Non-Peer Social Support BY				
Teachers at school (SS4a)	1.00[a] (.00)	.85** (.03)	.71** (.05)	.29
The Program Director or Academic Coordinator (SS4b)	1.11** (.05)	.94** (.03)	.88** (.05)	.12
Office staff (SS4c)	1.04** (.05)	.88** (.03)	.78** (.05)	.22
Mixed Peer Social Support BY				
Friends in school who speak my native language (SS4d)	1.00[a] (.00)	.64** (.07)	.40** (.09)	.60
Friends in school who speak different native languages (SS4e)	1.17** (.17)	.74** (.05)	.55** (.08)	.45
Friends outside school who speak my native language (SS4f)	1.12** (.12)	.71** (.07)	.50** (.10)	.50
Friends outside school who speak different native languages (SS4g)	1.05** (.17)	.67** (.05)	.45** (.07)	.55
Co-National Identification BY				
Clothing, what you wear (CNIa)	1.00[a] (.00)	.72** (.04)	.52** (.06)	.48
Pace of life, how you pace your daily activities (CNIb)	1.15** (.08)	.83** (.04)	.69** (.07)	.31
Material comfort, standard of living (CNIf)	1.01** (.08)	.73** (.04)	.53** (.06)	.47
Activities that you do in free time (CNIg)	1.00** (.08)	.72** (.04)	.51** (.06)	.49
Social customs, behaviors, manners (CNIs)	.91** (.09)	.65** (.05)	.42** (.06)	.58
Host-National Identification BY				
Clothing, what you wear (HNIa)	1.00[a] (.00)	.66** (.05)	.44** (.07)	.56
Food, what you eat (HNId)	1.04** (.10)	.69** (.05)	.48** (.07)	.52
Material comfort, standard of living (HNIf)	.97** (.10)	.64** (.05)	.41** (.06)	.59
Activities that you do in free time (HNIg)	1.02** (.09)	.68** (.04)	.50** (.06)	.54
Friendships (HNIk)	.98** (.10)	.65** (.05)	.42** (.06)	.58
Communication styles (HNIl)	1.09** (.11)	.72** (.05)	.52** (.07)	.48
Covariance				
SS3b WITH SS3c	.09 (.05)	.20* (.10)	n/a	n/a
SS3d WITH SS3f	.19* (.08)	.30** (.10)	n/a	n/a
SS4d WITH SS4f	.13 (.08)	.23* (.11)	n/a	n/a

Note. Unst. = unstandardized; St. = standardized; R^2 = explained variance; Res. Var. = residual variance; * = $p < .05$, ** = $p < .01$; N=187; [a]Not tested for statistical significance

In this study, I explored the relationships among the latent variables related to Perceived Difficulties, Social Support, and Degrees of Acculturation. Specifically, as illustrated in Figure 3.9, I hypothesized that School Difficulties positively predicted both L2 Social Support and L1 Social Support, and that L2 Social Support further negatively predicted Co-National Identification and was positively related to Host-National

Identification. Likewise, I also hypothesized that Living Abroad Difficulties was related to L2 Non-Peer Social Support negatively but was related to Mixed Peer Social Support positively. Figure 4.1 illustrates the final full structural model with all the structural paths and errors. Since there were many indicator variables involved in the full SEM model, I separately listed unstandardized and standardized parameter estimates, and residual variance in the measurement model for the final model in Table 4.20, and unstandardized and standardized parameter estimates, and residual variances in the structural model in Table 4.21.

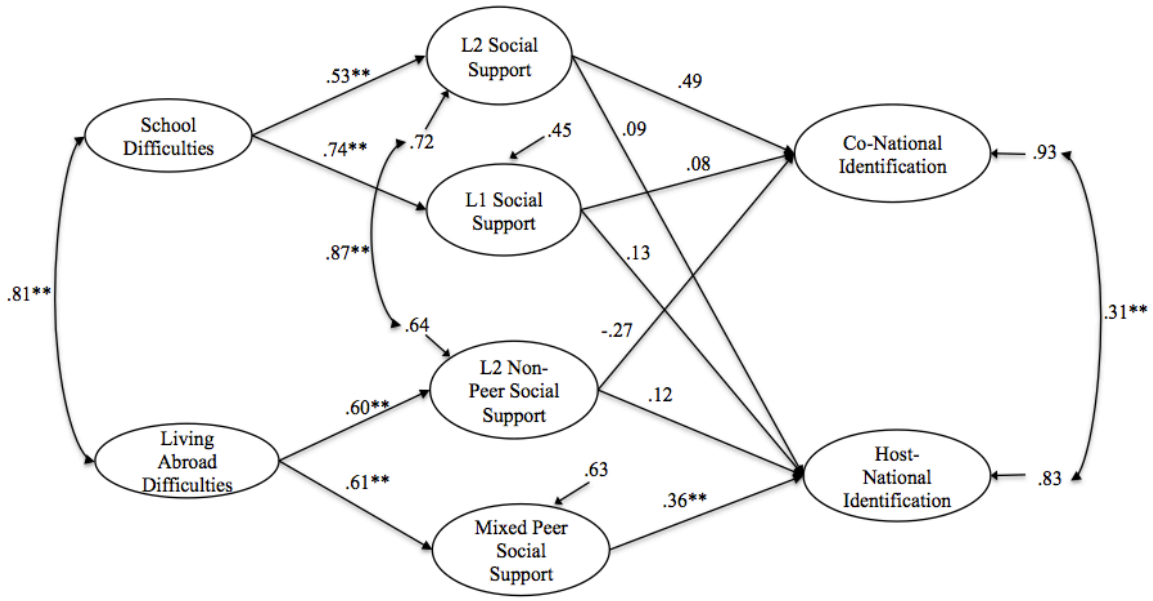

Figure 4.1 Standardized path model of Perceived Difficulties, Social Support, and Degrees of Acculturation (* = $p < .05$, ** = $p < .01$)

Table 4.21

Unstandardized and Standardized in Structural Model for the SEM Model (Standard Errors in Parentheses)

Parameter estimate	Unstandardized	Standardized
L2 Social Support ON School Difficulties	.52** (.07)	.53** (.06)
L1 Social Support ON School Difficulties	.57** (.08)	.74** (.07)
L2 Non-Peer Social Support ON Living Abroad Difficulties	.55** (.05)	.60** (.05)
Mixed Peer Social Support ON Living Abroad Difficulties	.42** (.06)	.61** (.06)
Co-National Identification ON L2 Social Support	.47 (.44)	.49 (.46)
Co-National Identification ON L1 Social Support	.09 (.22)	.08 (.19)
Co-National Identification ON L2 Non-Peer Social Support	-.23 (.41)	-.27 (.48)
Host-National Identification ON L2 Social Support	.08 (.32)	.09 (.36)
Host-National Identification ON L1 Social Support	.15 (.23)	.13 (.21)
Host-National Identification ON L2 Non-Peer Social Support	.09 (.31)	.12 (39)
Host-National Identification ON Mixed Peer Social Support	.38** (.14)	.36** (.13)
Covariance		
L2 Social Support WITH L2 Non-Peer Social Support	.37** (.04)	.87** (.06)
School Difficulties WITH Living Abroad Difficulties	.59** (.03)	.81** (.03)
Co-National Identification WITH Host-National Identification	.13** (.04)	.31** (.08)
Variances		
School Difficulties	.60** (.04)	1.00[a] (.00)
Living Abroad Difficulties	.86** (.03)	1.00[a] (.00)
Residual variances		
L2 Social Support	.40** (.05)	.72** (.06)
L1 Social Support	.16** (.06)	.45** (.10)
L2 Non-Peer Social Support	.46** (.05)	.64** (.06)
Mixed Peer Social Support	.25** (.07)	.63** (.08)
Co-National Identification	.48** (.07)	.93** (.07)
Host-National Identification	.36** (.07)	.83** (.09)

Note. * $p < .05$, ** $p < .01$; N = 187; [a]Not tested for statistical significance

In examining the relationships among the latent variables related to Perceived Difficulties, Social Support, and Degrees of Acculturation, the results of the SEM provided mixed support for the hypotheses I had proposed based on the conceptual framework regarding the effects of the paths between the latent variables. Hypotheses 1 to 4, addressing the four paths between the amount of difficulties that students perceived

in school and non-school settings and the amount of social support that they utilized to deal with difficulties, were all supported, as hypothesized. School Difficulties and Living Abroad Difficulties were found to positively predict the amount of L2 Social Support, L1 Social Support, N2 Non-Peer Social Support, and Mixed Peer Social Support, and these relationships were statistically significant.

Contrary to Hypotheses 5 to 11, the results for the effects of different types of Social Support on Degrees of Acculturation in terms of cultural identification were all non-significant, except for the positive effect of Mixed Peer Social Support on Host-National Identification as in Hypothesis 11. This statistically significant effect indicates that the amount of social support that students receive from a mixed group of peers who share the same first language to communicate with students and those who have to rely on English, students' second language, to communicate with them positively predict degrees of cultural identification with host-nationals. These non-significant effects of L2 Social Support, L1 Social Support, and L2 Non-Peer Social Support on Co-National Identification and Host-National Identification mean that these latent variables of Social Support cannot predict Degrees of Acculturation in the data represented by the sample of students in this study.

Based on these findings, I modified the path model in Figure 4.1 by taking out non-significant paths. I removed the six non-significant paths among L2SS, L1SS, L2NPSS, CNI, and HNI while keeping the path between MPSS and HNI in the path model, and ran another round of SEM. Table 4.22 presents the results of the test of the model fit. The values obtained for the model fit indices did not improve as much. Therefore, I decided to proceed with post hoc modifications based on modification

indices suggested on the Mplus output in order to improve its fit. The first post hoc modification was to add covariance between MPSS and L1SS. This was a reasonable modification because both of the latent variables were consisted of items tapping on the use of L1 social support. The SEM results indicated that the model fit indices were better than those for the base model. However, the Mplus output indicated a warning for a possible problem with MPSS in respect to the latent variable covariance matrix. However, it is not unusual for a full SEM model to find a negative variance related to one of the factors and that such warning message could disappear as the negative residual variance associated with an initially problematic factor is eliminated after some model modifications (Byrne, 2012). Therefore, I decided to proceed with post hoc modifications based on modification indices.

Table 4.22

Fit Indices for Revised Structural Model

Model	Description	x^2	*df*	RMSEA [90% CI]	CFI	TLI	Mplus Warning (Problem involving)
The earlier model	Earlier measurement model	1512.41*	644	.09 [.08, .09]	.92	.91	none
The revised base model	Dropped 6 non-sig. paths	1401.71*	479	.10 [.10, .11]	.91	.90	none
Modification 1: MPSS with L1SS	Added covariance between items measuring the use of L1 social support	1148.30*	478	.09 [.08, .09]	.94	.93	MPSS
Modification 2: MPSS with L2SS	Added covariance between items measuring the use of L2 social support	956.13*	477	.07 [.07, .08]	.96	.95	MPSS
Modification 3: MPSS with L2NPSS	Added covariance between items measuring the use of L2 social support	811.17*	476	.06 [.05, .07]	.97	.97	MPSS
Modification 4: SS3D with SS4D	Added covariance between items measuring the use of social support from 'Friends in school who speak my native language'	760.96*	475	.06 [.05, .06]	.97	.97	MPSS
Modification 5: SS3E with SS4E	Added covariance between items measuring the use of social support from 'Friends in school who speak different native languages'	733.50*	474	.05 [.05, .06]	.98	.97	MPSS
Modification 6/ The final revised model: SS3F with SS4F	Added covariance between items measuring the use of social support from 'Friends outside school who speak my native language'	714.34*	473	.05 [.04, .06]	.98	.98	None

Note. CI = confidence interval; *$p < .05$

As presented in Table 4.22, I made a total of six post hoc modifications to the revised base model. Again, any modifications were selectively made within the reasonable theoretical boundaries. The second and third modifications were adding covariance between MPSS and L2SS, both of which tapped into the use of L2 social support, and between MPSS and L2NPSS, both of which also tapped into the use of L2 social support. The last three modifications were adding covariance between indicator variables measuring the use of social support from "*friends in school who speak my native language*," "*friends in school who speak different native languages*," and "*friends outside school who speak my native language*." After the sixth post hoc modification, the Chi-square for the test of the model fit was 714.34 with a degree of freedom of 473. It was still significant and indicated that the model did not fit the data well. RMSEA was .05 with the 90% confidence interval of .04 and .06. CFI and TLI were .98 and .98. These values indicated a good fit (for RMSEA, Browne & Cudeck, 1993; Geiser, 2012; for CFI/TLI, Dimitrov, 2011; Hu & Bentler, 1999).

Most interestingly, the warning message regarding issues with the latent variable covariance matrix disappeared after making the sixth modification. Given that the RMSEA, CFI and TLI met the fit criteria for a good fit (for RMSEA, Browne & Cudeck, 1993; Geiser, 2012; for CFI/TLI, Dimitrov, 2011; Hu & Bentler, 1999), and that there was no longer a warning in the Mplus output, I determined to proceed with the model with Modification # 6 for further examination.

Table 4.23 presents the amount of variance explained by the revised model for each dependent latent variable. The amount of variance explained by each indicator variable in the full revised model is presented in Table 4.24. All standard errors for

variance explained for items included in the revised model were relatively small ranging from .03 to .09. The variances explained were small to large, ranging from .10 (for HNI) to .93 for (PD2h).

Table 4.23

Explained Variance and Standard Error of Dependent Variables in Structural Model for the Revised SEM Model

Dependent variable	R^2	*SE*
L2 Social Support	.18**	.06
L1 Social Support	.28**	.09
L2 Non-Peer Social Support	.27**	.06
Mixed Peer Social Support	.11*	.05
Host-National Identification	.10*	.04

Note. R^2 = explained variance; * $p < .05$, ** $p < .01$

Table 4.24

Unstandardized, Standardized, Explained Variance, and Residual Variance in Measurement Model for the Revised SEM Model (Standard Errors in Parentheses)

Parameter estimate	Unst.	St.	R^2	Res. Var.
School Difficulties BY				
Communicating with other students in English (PD1a)	1.00[a] (.00)	.79** (.03)	.62** (.04)	.38
Getting feedback from teachers to improve my English ability (PD1c)	1.05** (.04)	.82** (.03)	.68** (.04)	.32
Participating in class (PD1d)	1.16** (.04)	.91** (.02)	.83** (.03)	.17
Doing homework (PD1g)	1.14** (.04)	.90** (.02)	.81** (.04)	.19
Taking tests or quizzes (PD1h)	1.11** (.04)	.87** (.02)	.76** (.04)	.24
Getting used to university campus life (PD1i)	1.10** (.04)	.87** (.02)	.75** (.04)	.25
Following school rules (PD1j)	1.17** (.04)	.92** (.02)	.84** (.03)	.16
Living Abroad Difficulties BY				
Making friends (PD2g)	1.00[a] (.00)	.93** (.02)	.87** (.03)	.13
Keeping relationships with others (PD2h)	1.03** (.02)	.96** (.01)	.93** (.03)	.07
Keeping my visa status (PD2i)	.75** (.05)	.70** (.05)	.49** (.06)	.51
Keeping my health (PD2j)	.79** (.04)	.74** (.04)	.55** (.06)	.46
Dealing with prejudice based on my nationality (PD2k)	.82** (.04)	.77** (.03)	.59** (.05)	.41
Working toward my future plan (PD2l)	.63** (.05)	.59** (.05)	.35** (.06)	.66
L2 Social Support BY				
Teachers at school (SS3a)	1.00[a] (.00)	.75** (.04)	.56** (.06)	.44
The Program Director or Academic Coordinator (SS3b)	.99** (.09)	.74** (.05)	.55** (.07)	.45
Office staff (SS3c)	.98** (.08)	.73** (.05)	.53** (.07)	.47
Friends in school who speak different native languages (SS3e)	.90** (.07)	.67** (.05)	.45** (.06)	.55
L1 Social Support BY				
Friends in school who speak my native language (SS3d)	1.00[a] (.00)	.56** (.07)	.31** (.07)	.69
Friends outside school who speak my native language (SS3f)	1.05** (.13)	.59** (.07)	.34** (.08)	.66
Friends or family in my country (SS3o)	1.31** (.19)	.73** (.06)	.53** (.09)	.47
L2 Non-Peer Social Support BY				
Teachers at school (SS4a)	1.00[a] (.00)	.85** (.03)	.72** (.05)	.28
The Program Director or Academic Coordinator (SS4b)	1.10** (.05)	.93** (.03)	.87** (.05)	.13
Office staff (SS4c)	1.05** (.05)	.89** (.03)	.79** (.05)	.22
Mixed Peer Social Support BY				
Friends in school who speak my native language (SS4d)	1.00[a] (.00)	.55** (.07)	.30** (.07)	.70
Friends in school who speak different native languages (SS4e)	1.37** (.19)	.75** (.04)	.57** (.07)	.43
Friends outside school who speak my native language (SS4f)	1.24** (.14)	.68** (.06)	.46** (.08)	.54

Friends outside school who speak different native languages (SS4g)	1.31** (.19)	.72** (.05)	.52** (.07)	.48
Host-National Identification BY				
Clothing, what you wear (HNIa)	1.00[a] (.00)	.66** (.05)	.43** (.07)	.57
Food, what you eat (HNId)	1.08** (.10)	.71** (.05)	.50** (.07)	.50
Material comfort, standard of living (HNIf)	.95** (.09)	.63** (.05)	.39** (.06)	.61
Activities that you do in free time (HNIg)	1.02** (.09)	.67** (.04)	.45** (.06)	.56
Friendships (HNIk)	1.00** (.10)	.66** (.05)	.43** (.06)	.57
Communication styles (HNIl)	1.11** (.11)	.73** (.05)	.53** (.07)	.47
Covariance				
SS3b WITH SS3c	.09 (.05)	.20* (.09)	n/a	n/a
SS3d WITH SS3f	.23** (.07)	.34** (.09)	n/a	n/a
SS3d WITH SS4d	.43** (.05)	.61** (.05)	n/a	n/a
SS3e WITH SS4e	.30** (.04)	.61** (.09)	n/a	n/a
SS3f WITH SS4f	.30** (.05)	.49** (.06)	n/a	n/a
SS4d WITH SS4f	.20** (.06)	.33** (.08)	n/a	n/a

Note. Unst. = unstandardized; St. = standardized; R^2 = explained variance; Res. Var. = residual variance; * = $p < .05$, ** = $p < .01$; N=187; [a]Not tested for statistical significance

I conducted this round of SEM analyses to find a better fitting model to explain the relationships among Perceived Difficulties, Social Support, and Degrees of Acculturation by taking out the six non-significant paths between Social Support and Degrees of Acculturation. Figure 4.2 illustrates the full revised structural model with all the structural paths and disturbances. As was the case with the earlier SEM, I listed unstandardized and standardized parameter estimates, and residual variance in the measurement model for the revised model in Table 4.24, and unstandardized and standardized parameter estimates in the structural model in Table 4.25.

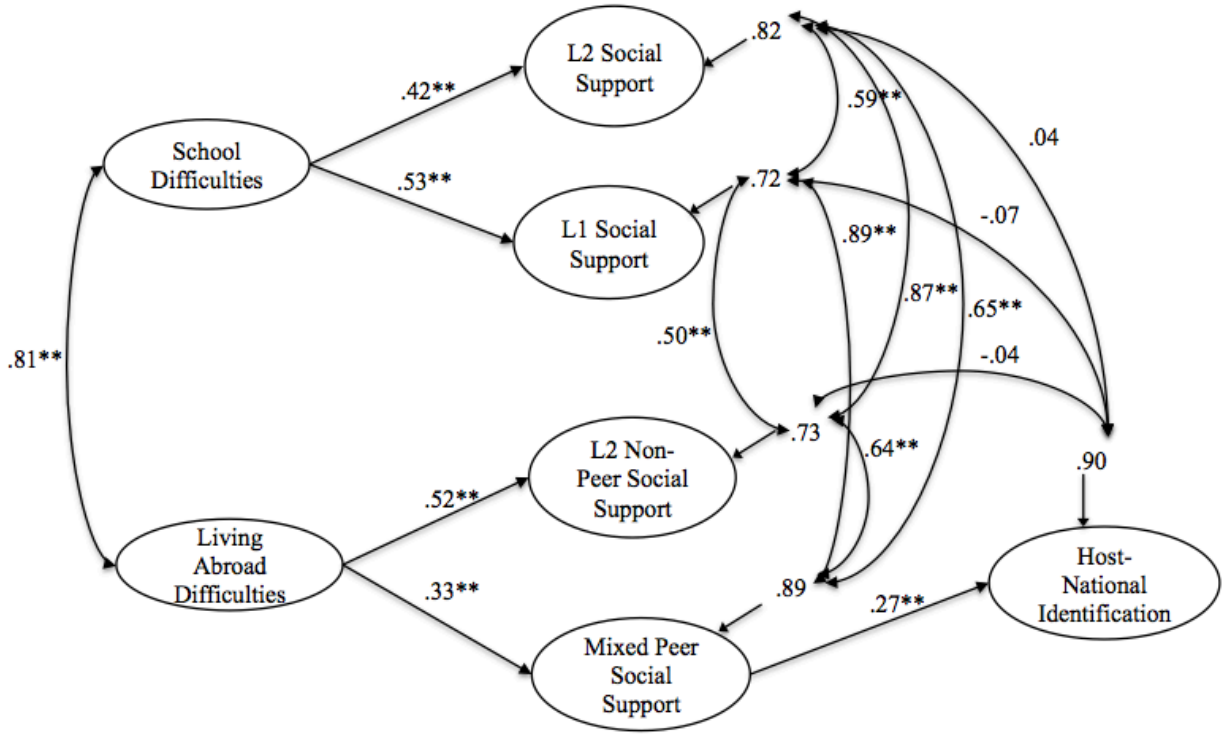

Figure 4.2 Revised standardized path model of Perceived Difficulties, Social Support, and Degrees of Acculturation (* = $p < .05$, ** = $p < .01$)

Table 4.25

Unstandardized and Standardized in Structural Model for the Revised SEM Model (Standard Error in Parentheses)

Parameter estimate	Unstandardized	Standardized
L2 Social Support ON School Difficulties	.40** (.07)	.42** (.07)
L1 Social Support ON School Difficulties	.37** (.07)	.53** (.08)
L2 Non-Peer Social Support ON Living Abroad Difficulties	.47** (.06)	.52** (.06)
Mixed Peer Social Support ON Living Abroad Difficulties	.20** (.05)	.33** (.08)
Host-National Identification ON Mixed Peer Social Support	.33** (.11)	.27** (.09)
Covariance		
Study Abroad Difficulties WITH Living Abroad Difficulties	.05** (.03)	.81** (.03)
L1 Social Support WITH L2 Social Support	.19** (.04)	.59** (.09)
L1 Social Support WITH L2 Non-Peer Social Support	.17** (.04)	.50** (.10)
L1 Social Support WITH Mixed Peer Social Support	.22** (.05)	.89** (.09)
L1 Social Support WITH Host-National Identification	-.02 (.02)	-.07 (.08)
L2 Social Support WITH L2 Non-Peer Social Support	.42** *.05)	.87** (.05)
L2 Social Support WITH Mixed Peer Social Support	.23** (.04)	.65** (.07)
L2 Social Support WITH Host-National Identification	.02 (.03)	.04 (.07)
L2 Non-Peer Social Support WITH Mixed Peer Social Support	.24** (.05)	.64** (.07)
L2 Non-Peer Social Support WITH Host-National Identification	-.02 (.03)	-.04 (.07)
Variances		
School Difficulties	.62** (.04)	1.00[a] (.00)
Living Abroad Difficulties	.87** (.03)	1.00[a] (.00)
Residual variances		
L2 Social Support	.46** (.06)	.82** (.06)
L1 Social Support	.22** (.06)	.72** (.09)
L2 Non-Peer Social Support	.53** (.05)	.73** (.06)
Mixed Peer Social Support	.27** (.07)	.89** (.05)
Host-National Identification	.39** (.06)	.90** (.04)

Note. * $p < .05$, ** $p < .01$; N = 187; [a]Not tested for statistical significance

As presented in Figure 4.2, the four pathways between Perceived Difficulties (i.e., SD and LAD) and Social Support (i.e., L2SS, L1SS, L2NPSS, and MPSS) were statistically significant and positively related to each other as in the previous SEM model in Figure 4.1. However, the strength of the relationships in terms of standardized parameter estimates was different from those in the previous model using the six paths between Social Support and Degrees of Acculturation. More precisely, the difference between the standardized parameter estimates for the SD – L2SS and SD – L1SS was

much smaller than that in the previous model. While the new model continued to support the finding that students receive more support from L1 speaking individuals than from L2 (English) speaking counterparts in dealing with school-related difficulties, it also indicated that the amount of support that students receive from L1 speaking individuals was much smaller than that identified in the previous model. Another observation we can make in the new model is that the difference between the standardized parameter estimates for the LAD – L2NPSS and LAD – MPSS was bigger than that in the earlier model, and that students receive more support from L2 speaking non-peer individuals (i.e., teachers, school administrative personnel) than from their L1 and L2 speaking peers when dealing with difficulties in their personal lives.

English language proficiency. Although this study did not initially aim to examine how students' English language proficiency levels are related to the three main constructs of interest, Perceived Difficulties, Social Support, and Degrees of Acculturation, students' English proficiency levels appear to come in to play when we speculate how the three constructs are related to each other. Doi (2009) found that communication and stress due to low proficiency in English were one of the many causes attributed to difficulties that students had to face while studying abroad. Moreover, according to the conceptual framework described in Chapter 1, the level of the target language proficiency is considered to be crucial when students carry out the initial assessment of a task's difficulty level. Therefore, it seems logical to examine how students' language proficiencies in English play a role in the path models that were already explored in this study.

Figure 4.3 illustrates the hypothesized path model of English Proficiency Level, Perceived Difficulties, and Social Support. As was the case in Figure 3.9, circles represent latent variables, and a line connecting variables in the model implies existence of a hypothesized effect (either positive or negative). In Figure 4.3, the four latent variables of Social Support, L2 Social Support, L1 Social Support, L2 Non-Peer Social Support, and Mixed Peer Social Support, are endogenous variables, and they are predicted by the two latent variables of Perceived Difficulties, School Difficulties and Living Abroad Difficulties. Furthermore, a new variable for English Proficiency Level, added into the proposed path model, is an observed variable, and it is hypothesized to predict School Difficulties and Living Abroad Difficulties. More specifically, I predicted that the higher students' English Proficiency Level, the fewer degrees of Perceived Difficulties that student encounter both in school and non-school settings. Note that the latent variables for Degrees of Acculturation, Co-National Identification and Host-National Identification, were both completely removed because almost all the paths between the latent variables for Social Support and those for Degrees of Acculturation were found to be non-significant. The path between MPSS and HNI was significant, but I have suspected that the significant relationship between MPSS and HNI could have been attributable to the uniqueness of the geographic location for this study, as I discussed earlier. Therefore, I could reasonably speculate that the relationship might not have turned out to be significant if the study had been conducted with the similar group of ESL students somewhere else.

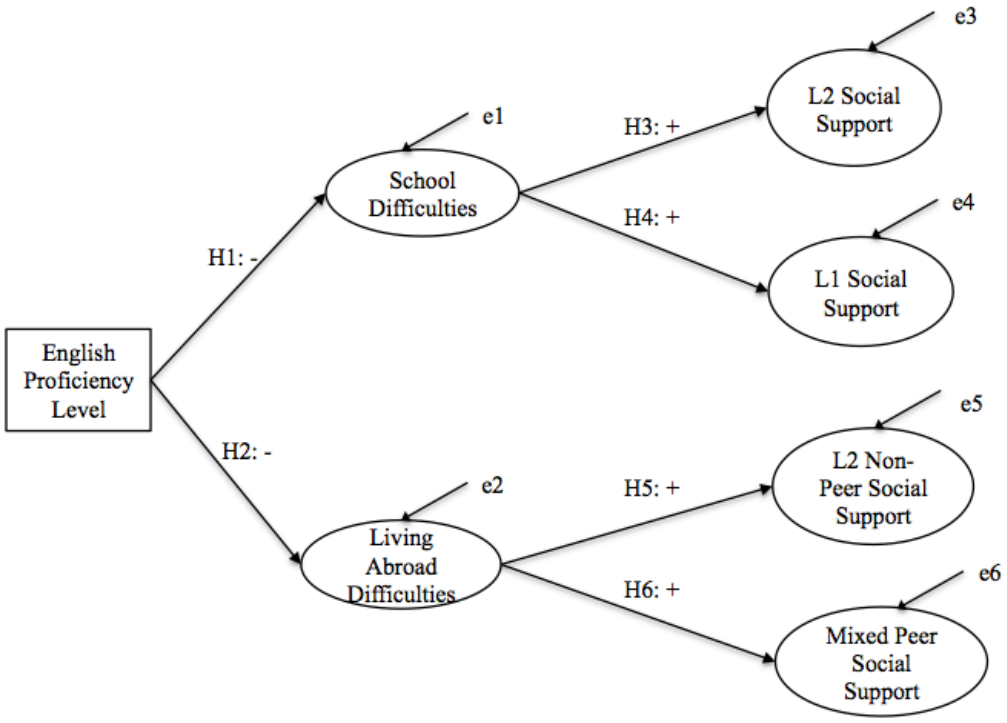

Figure 4.3 Hypothesized path model of Language Proficiency Level, Perceived Difficulties, and Social Support

The followings are specific hypotheses addressed in Figure 4.3.

Hypothesis 1: Levels of students' Language Proficiency in English negatively affect degrees of School Difficulties that they experience.

Hypothesis 2: Levels of students' Language Proficiency in English negatively affect degrees of Living Abroad Difficulties that they experience.

Hypotheses 3 to 6 are the same as the ones for the proposed path model in Figure 3.9.

The information on English Proficiency Level was students' class assignments for the Oral Production course in the program. Their levels were determined based on the results of the in-house placement test for newly enrolled students, or the level recommendations from their teachers for continuing students. This placement test has demonstrated inter-rater reliability of .87 (S. Smith, personal communication, January 30, 2013).

The Oral Production course offers 5 levels of classes ranging from Basic to Advanced. As described in Chapter 3, there were 9 students for Basic (4.8%), 58 for Basic High (31.0%), 62 for Intermediate (33.2%), 30 for Intermediate High (16.0%), and 28 for Advanced (15.0%) in the sample of 187 students. The mean was 3.05 (*SD* = 1.13, Skewness = .33, Kurtosis = -.77).

In order to test if the hypothesized model in Figure 4.3 fit the data set, I conducted SEM with WLSMV using Mplus. I referred to the same set of fit indices to assess the fit of the model, and values for these fit indices are presented in Table 4.26. First, the Chi-square for the test of the model fit was 3035.37 with a degree of freedom of 332, and this statistically significant Chi-square value indicated that the hypothesized structural model did not fit the data well. In addition, none of the values obtained for the other model fit indices (RMSEA, CFI, and TLI) met the criteria for an acceptable fit. It is also important to note that the Mplus output indicated a warning for a possible problem with L2NPSS, in respect to the latent variable covariance matrix. As seen earlier in the previous set of SEM in this study, however, it is not unusual for a full SEM model to find a negative variance related to one of the factors and that such warning message could disappear as the negative residual variance is eliminated after some model modifications (Byrne, 2012). Therefore, I decided to proceed with post hoc modifications based on modification indices in the Mplus output.

As presented in Table 4.26, I made four post hoc modifications to the initial model. The first modification was made by adding covariance between the two latent variances related to Perceived Difficulties (i.e., SD and LAD) since it was reasonable to assume that their error terms were related to each other. The results of this modification

were an improvement from those of the initial model. The Chi-square for the test of the model fit was 646.87 with a degree of freedom of 331. This significant Chi-square test result was still an indication that the model did not fit the data well. On the contrary, the other three fit indices met the criteria for an acceptable model (RMSEA = .07) (Browne & Cudeck, 1993; Geiser, 2012) and for a good model (CFI = .97, TLI = .96) (Dimitrov, 2011; Hu & Bentler, 1999). Although the model fit itself seemed to be good enough for me to proceed with the interpretation of the model, there was the same warning message regarding the latent variable covariance matrix, but for MPSS this time.

I carefully made three more modifications. These modifications were adding covariance between indicator variables measuring the use of social support from "*friends in school who speak my native language*" (for Modification #2), "*friends in school who speak different native languages*" (for Modification #3), and "*friends outside school who speak my native language*" (for Medication #4). The Chi-square for the test of the model fit was 525.07 with a degree of freedom of 328. It was still significant and indicated that the model did not fit the data well. RMSEA was .06 with the 90% confidence interval of .05 and .07. This RMSEA value indicated an acceptable fit (Browne & Cudeck, 1993; Geiser, 2012). CFI and TLI were .98 and .98, and they indicated a good fit (Dimitrov, 2011; Hu & Bentler, 1999).

Most interestingly, the warning message regarding issues with the latent variable covariance matrix disappeared after making the fourth modification. Given that the RMSEA, CFI and TLI met the criteria for fit indices (for RMSEA, Browne & Cudeck, 1993; Geiser, 2012; for CFI/TLI, Dimitrov, 2011; Hu & Bentler, 1999), and that there

was no longer a warning in the Mplus output, I determined to proceed with the model with Modification #4 for further examination.

Table 4.26

Fit Indices for Structural Model with English Proficiency Level

Model	Description	x^2	*df*	RMSEA [90% CI]	CFI	TLI	Mplus Warning (Problem involving)
Initial model	Initial measurement model	3035.37*	332	.21 [.20, .22]	.70	.66	L2NPSS
Modification 1: SD with LAD	Added covariance between items measuring School Difficulties and Living Abroad Difficulties	646.87*	331	.07 [.06, .08]	.97	.96	MPSS
Modification 2: SS3D with SS4D	Added covariance between items measuring the use of social support from 'Friends in school who speak my native language'	584.92*	330	.06 [.06, .07]	.97	.97	MPSS
Modification 3: SS3E with SS4E	Added covariance between items measuring the use of social support from 'Friends in school who speak different native languages'	553.58*	329	.06 [.05, .07]	.98	.97	MPSS
Modification 4/ The final model: SS3F with SS4F	Added covariance between items measuring the use of social support from 'Friends outside school who speak my native language'	525.07*	328	.06 [.05, .07]	.98	.98	none

Note. CI = confidence interval; *$p < .05$

The amount of variance explained by the final model for each dependent variable is presented in Table 4.27. The amount of variance explained by each indicator variable in the final model is presented in Table 4.28. All standard errors for items included in the

model were small, ranging from .03 to .09. The variances explained (R^2) were small to moderate for the latent dependent variables, ranging from .10 to .28. The variances explained (R^2) for the indicator variables were moderate to large, ranging from .29 to .94.

Table 4.27

Explained Variance and Standard Error of Dependent Variables in the SEM Model with English Proficiency Level

Dependent variable	R^2	*SE*
School Difficulties	.14**	.05
Living Abroad Difficulties	.10*	.04
L2 Social Support	.18**	.06
L1 Social Support	.28**	.09
L2 Non-Peer Social Support	.28**	.06
Mixed Peer Social Support	.11*	.05

Note. R^2 = explained variance; * $p < .05$, ** $p < .01$

Table 4.28

Unstandardized, Standardized, Explained Variance, and Residual Variance in Measurement Model for the SEM Model with English Proficiency Level (Standard Errors in Parentheses)

	Unst.	St.	*R2*	Res. Var.
School Difficulties BY				
Communicating with other students in English (PD1a)	1.00[a] (.00)	.79** (.03)	.62** (.05)	.42
Getting feedback from teachers to improve my English ability (PD1c)	1.06** (.05)	.83** (.03)	.68** (.04)	.35
Participating in class (PD1d)	1.18** (.05)	.91** (.02)	.83** (.03)	.19
Doing homework (PD1g)	1.17** (.05)	.90** (.02)	.81** (.03)	.21
Taking tests or quizzes (PD1h)	1.12** (.05)	.87** (.02)	.76** (.04)	.27
Getting used to university campus life (PD1i)	1.11** (.05)	.86** (.02)	.75** (.04)	.28
Following school rules (PD1j)	1.20** (.05)	.92** (.01)	.85** (.03)	.17
Living Abroad Difficulties BY				
Making friends (PD2g)	1.00[a] (.00)	.93** (.02)	.87** (.03)	.15
Keeping relationships with others (PD2h)	1.05** (.03)	.97** (.01)	.94** (.02)	.07
Keeping my visa status (PD2i)	.75** (.05)	.71** (.04)	.51** (.06)	.52
Keeping my health (PD2j)	.79** (.04)	.74** (.04)	.55** (.06)	.47
Dealing with prejudice based on my nationality (PD2k)	.82** (.04)	.77** (.03)	.60** (.05)	.43
Working toward my future plan (PD2l)	.61** (.05)	.59** (.05)	.34** (.06)	.68
L2 Social Support BY				
Teachers at school (SS3a)	1.00[a] (.00)	.76** (.04)	.57** (.07)	.43
The Program Director or Academic Coordinator (SS3b)	.99** (.09)	.74** (.05)	.56** (.07)	.45
Office staff (SS3c)	.93** (.09)	.70** (.05)	.49** (.07)	.52
Friends in school who speak different native languages (SS3e)	.90** (.07)	.68** (.05)	.46** (.06)	.54
L1 Social Support BY				
Friends in school who speak my native language (SS3d)	1.00[a] (.00)	.55** (.07)	.30** (.07)	.70
Friends outside school who speak my native language (SS3f)	.99** (.13)	.54** (.07)	.30** (.07)	.71
Friends or family in my country (SS3o)	1.38** (.20)	.76** (.06)	.58** (.09)	.43
L2 Non-Peer Social Support BY				
Teachers at school (SS4a)	1.00[a] (.00)	.85** (.03)	.72** (.05)	.30
The Program Director or Academic Coordinator (SS4b)	1.10** (.05)	.93** (.03)	.87** (.05)	.14
Office staff (SS4c)	1.04** (.05)	.89** (.03)	.78** (.05)	.23
Mixed Peer Social Support BY				
Friends in school who speak my native language (SS4d)	1.00[a] (.00)	.54** (.07)	.29** (.07)	.71
Friends in school who speak different native languages (SS4e)	1.41** (.19)	.76** (.04)	.57** (.07)	.43
Friends outside school who speak my native	1.24** (.14)	.67** (.06)	.44** (.08)	.56

language (SS4f)				
Friends outside school who speak different native languages (SS4g)	1.36** (.20)	.73** (.05)	.54 ** (.07)	.47
Covariance				
SS3b WITH SS3c	.12* (.05)	.24* (.09)	n/a	n/a
SS3d WITH SS3f	.26** (.07)	.36** (.08)	n/a	n/a
SS3d WITH SS4d	.44** (.05)	.62** (.05)	n/a	n/a
SS3e WITH SS4e	.29** (.04)	.61** (.09)	n/a	n/a
SS3f WITH SS4f	.33** (.05)	.52** (.06)	n/a	n/a
SS4d WITH SS4f	.22** (.06)	.34** (.08)	n/a	n/a

Note. Unst. = unstandardized; St. = standardized; R^2 = explained variance; Res. Var. = residual variance; * = $p < .05$, ** = $p < .01$; N=187; [a]Not tested for statistical significance

As a follow-up question to Research Question 3, I added the observed variable of English Proficiency Level in the model and dropped the two latent variables related to Degrees of Acculturation, as discussed earlier. Figure 4.4 illustrates the final full structural model including English Proficiency Level with all the structural paths and disturbances. As was the case with the earlier analyses, I separately listed unstandardized and standardized parameter estimates, and residual variance in the measurement model for the final model with English Proficiency Level in Table 4.28, and unstandardized and standardized parameter estimates in the structural model in Table 4.29.

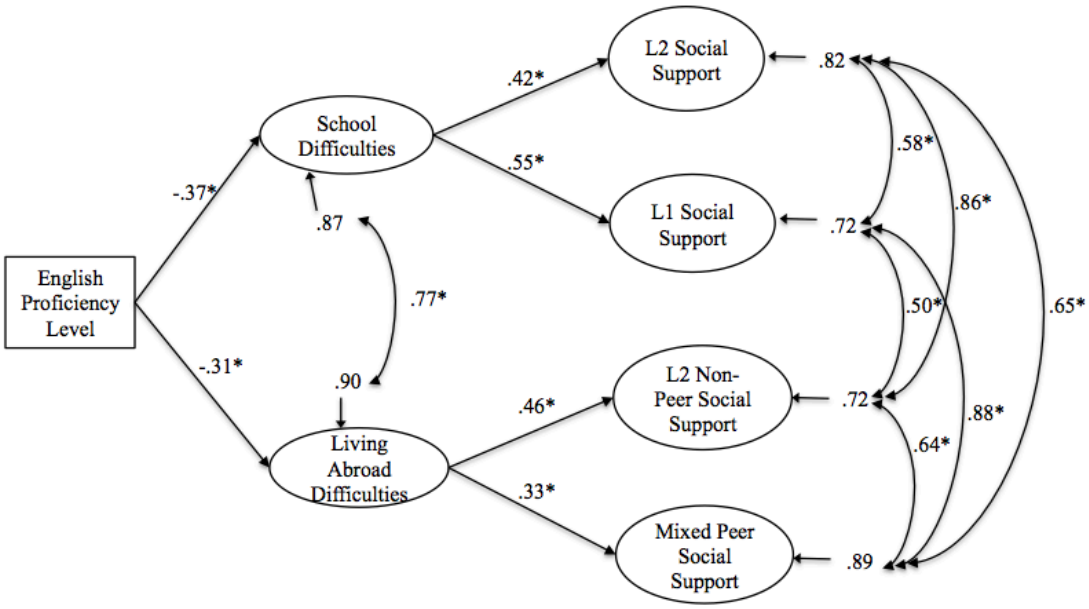

Figure 4.4 Standardized path model of Language Proficiency Level, Perceived Difficulties, and Social Support (* = $p < .05$, ** = $p < .01$)

Table 4.29

Unstandardized and Standardized in Structural Model for the SEM Model with English Proficiency Level (Standard Errors in Parentheses)

Parameter estimate	Unstandardized	Standardized
School Difficulties ON English Level	-.27** (.05)	-.37** (.06)
Living Abroad Difficulties ON English Level	-.27** (.06)	-.31** (.07)
L2 Social Support ON School Difficulties	.39** (.07)	.42 **(.07)
L1 Social Support ON School Difficulties	.37** (.07)	.55** (.08)
L2 Non-Peer Social Support ON Living Abroad Difficulties	.41** (.06)	.46** (.06)
Mixed Peer Social Support ON Living Abroad Difficulties	.18** (.05)	.33** (.08)
Covariance		
School Difficulties WITH Living Abroad Difficulties	.54** (.04)	.77** (.03)
L1 Social Support WITH L2 Social Support	.19** (.04)	.58** (.09)
L1 Social Support WITH L2 Non-Peer Social Support	.18** (.04)	.50** (.09)
L1 Social Support WITH Mixed Peer Social Support	.21** (.05)	.88** (.08)
L2 Social Support WITH L2 Non-Peer Social Support	.44** (.05)	.86** (.05)
L2 Social Support WITH Mixed Peer Social Support	.23** (.04)	.65** (.07)
L2 Non-Peer Social Support WITH Mixed Peer Social Support	.24** (.05)	.64** (.06)
Residual variances		
School Difficulties	.58** (.05)	.87** (.05)
Living Abroad Difficulties	.85** (.03)	.90** (.04)
L2 Social Support	.48** (.06)	.82** (.06)
L1 Social Support	.22** (.06)	.72** (.09)
L2 Non-Peer Social Support	.56** (.06)	.72** (.06)
Mixed Peer Social Support	.26** (.07)	.89** (.05)

Note. * $p < .05$, ** $p < .01$; N=187

This follow-up analysis examined how students' English Proficiency Level is related to the SEM model that I reached after exploring the relationships among the latent variables related to Perceived Difficulties and Social Support. I predicted that students' English Proficiency Level would be negatively related to degrees of difficulties that they had to deal with. The results of the follow-up SEM supported my hypotheses regarding the effects of English Proficiency Level on SD and LAD, and these effects were found to be significant. In other words, the higher their English Proficiency Levels are, the lower degrees of difficulties that they perceive. The lower their English Proficiency Levels are, the higher degrees of difficulties that they perceive. Along with the qualitative finding from the open-ended comments submitted by students, these findings further provide support for Doi's (2009) claim based on her qualitative study examining the life of study abroad ESL students that students' low levels of English proficiency add challenges for not only their school lives but also their personal lives outside the school setting.

As for the paths between the latent variables of Perceived Difficulties and those of Social Support, the relationships were found to be significant. Both SD and LAD continued to positively predict the use of Social Support regardless of language chosen for communication (i.e., students' L1, and English as a L2,) and the status of those who provide necessary support to students (i.e., peer, non-peer). However, the path model also illustrates that students tend to receive more support from L1 speaking individuals than L2 speaking counterparts in dealing with school-related difficulties while they tend to receive more support from L2 speaking non-peers (such as teachers and school administrative personnel) than their L1 and L2 speaking peers in dealing with non-school related difficulties.

CHAPTER 5: DISCUSSION

The previous chapter illustrated various analyses conducted to address the three research questions I had set forth at the beginning of this study. This chapter will start with general discussions of the findings for each research question in the study. Firstly, I will address Research Question 1, which aimed to identify difficulties that students encounter while studying abroad. Secondly, I will explore Research Question 2 regarding social support resources that they reach out to and receive help from in dealing with difficulties. Thirdly, I will address Research Question 3, which was to explore relationships among the three constructs of my interests, Perceived Difficulties, Social Support, and Degrees of Acculturation. After examining the findings to the research questions in depth, I will discuss some issues related to the conceptual framework described in Chapter 1. Lastly, I will conclude this study with limitations and suggestions for future research.

Research Question 1

To begin with, the first research question was regarding difficulties that ESL students face while studying abroad. I created two survey scales, one for difficulties in their school lives, and the other for those in their personal lives.

As for items related to difficulties in school, students rated all of the items above the midpoint overall on the 6-point scale, and the ratings for school difficulties ranged from 2.51 for "*getting used to university campus life*" to 3.03 for "*working toward my future plans*." Some of the difficulties were related to academic tasks such as "*taking tests or quizzes*," " *participating in class*," or "*doing homework*." Others were related to non-academic activities that any university student was expected to perform such as

"*following school rules*," "*making friends*," "*keeping relationships with others*," "*getting used to university campus life*," and "*working toward my future plans*." Given that students were enrolled in the intensive English program to improve their English skills, it is not surprising to see that students perceived tasks requiring the use of English to be challenging (Aubrey, 1991; Chen, 1999). In addition, as a response to the open-ended question, some students explicitly voiced their concerns regarding their English proficiency. It is understandable that students seem to have expected to make drastic improvements in their English proficiency by enrolling in the intensive English program and living in the United States for at least 10 weeks or longer, but that there seems to be a discrepancy between how much progress in their English proficiency they hoped to make and how much progress in actuality they were making. In addition, as discussed in the previous chapter, the results of SEM analysis which explored the relationships between English Language Proficiency and Perceived Difficulties clearly indicated that students' proficiency levels were negatively related to degrees of difficulties that students perceived both in school and non-school settings, and further supports that students' low proficiency levels can negatively affect their study abroad experiences (Doi, 2009).

Another notable finding regarding difficulties that students experience while studying abroad was that students came from some responses to the open-ended question. Students seem to have found themselves in a gap in the system where those enrolled in the intensive English program were considered to be non-regular university students by the university as their courses were not credit bearing and they were not paying for all the mandatory fees that regular degree-seeking students are all required to pay every semester. It is interesting to learn from students that they decided to enroll in the

intensive English program as all the classes in the program were offered on campus, and that by taking classes on campus every day, they hoped to live a "normal" life as university students in the United States along with other degree-seeking students by using various facilities on campus and participating in some sports clubs and events that were available to students and staff at the university. Research on students' retention in higher education claims that whether students can attain a degree depends on their abilities to integrate themselves into "the social and academic systems of their college through participation in extracurricular activities" (Christine & Dinham, 1991) along with interactions with other students and faculty. In this study, students are not degree-seeking in the study abroad institution, but their non-regular university student status could possibly pose a challenge for them to integrate socially as much as they had hoped and keep focusing on their initial goals for their study abroad experience.

When it comes to difficulties in personal life, the ratings for difficulties ranged from 1.55 for "*living alone*" to 3.11 for "*working toward my future plans*." Those difficulties in personal life were more dispersed in terms of ratings than those in school life. In the school context where students spend for about 4 to 8 hours a day, their activities and tasks are relatively controlled in terms of what activities they are expected to perform in class, what content they are supposed to learn in class, and how much homework they usually receive to review and prepare for a class. On the other hand, when it comes to their personal lives after finishing their time at school, tasks and activities that they engage in can vary greatly. For instance, there are many different circumstances for students' housing while studying abroad. Some students may go back to their dormitories with other students who came from the same home institutions in

their countries, and others may return to their own apartments where they have total freedom of how they structure their non-school time. Some may go back to their homestay homes or relatives' homes where homestay parents or family members could expect them to follow certain schedules for activities during non-school hours or on weekends.

Surprisingly, "*working toward my future plans*" was rated the highest among all the items both in the school and personal settings. Moreover, we can see that students rated "*getting a job after I return to my country*" high in personal life. These could be due to the fact that almost all the students in the program entered into the United States with a student visa or as a tourist using the visa waiver program between the United States and certain countries, and that their study abroad was only a temporary activity. Students on the visa waiver program can stay in the United States for the maximum of 90 days with a return flight ticket upon the entry to the United States (U.S. Department of State - Bureau of Consular Affairs, 2016). Since students have to leave the United States once their studies are completed or before the end of the 90-day stay depending on their immigration statuses, successfully landing on a job after returning to their home countries appears to be a main concern among students who are nearing the end of their undergraduate studies at their home institutions and those who left their jobs before studying abroad in the United States.

The concern for getting a job in the future was the most evident, as seen in the comments received from students regarding difficulties in personal life. Combined with comments regarding their future, there were 25 counts of comments in the total of 46 comments left by students. Some students referred to the competitive nature of job-

hunting in South Korea and Japan. Many students from these countries have often mentioned to me that the very reason for them to study abroad and enroll in an intensive English program is that not only having a good command of English demonstrated by a high score on standardized tests such as TOEFL or TOEIC but also having experiences of living and studying abroad are often desired by employers, and that having these things on their resumes will help them distinguish themselves from other applicants for jobs, as Anderson et al. (2006) explain. In other words, students seem to consider studying abroad as one form of future investment, which further supports the idea that studying abroad provides students with various intercultural and global experiences opportunities (Fischer, 2010; Gray et al., 2002; Martinez, 2011; Obst & Forster, 2005; OECD, 2015) is also strongly held by many students who chose to enroll in the intensive English program.

In addition, "*having money to support my life abroad"* was rated high among the difficulties in personal life. Except for a small group of students who were either citizens or permanent residents in the United States, most students in the program were not authorized to work for monetary compensations while studying abroad (U.S. Citizenship and Immigration Services, 2016). In other words, many of the students were on limited budgets. Those who were still enrolled in home institutions in their countries received financial support from their family members as well as some scholarships from their home institutions. Those who had left their jobs to study abroad usually had to tap into their own savings to support themselves. In such circumstances with tight budgets to support themselves abroad without any opportunities to make extra income and without close family members living together that they can ask to borrow some money, it is not

hard to imagine that students have to closely plan and watch how they spend their money while studying in Hawai‘i, where happens to be the worst state in terms of cost of living in the United States (“America’s top states,” 2016), so that their money could be stretched out during the entire duration of their study abroad.

In respect to how some demographic factors (e.g., gender, marital status, the highest education level completed, the length of study in the program, and age) are related to difficulties that student experience, there were some interesting patterns that emerged from the data analyses. While gender did not predict any differences in difficulties that students encountered, marital status was related to some difficulties for students. For single students, difficulties for “*working toward their future*,” “*getting a job after I return to my country*,” “*having money to support my life abroad*,” and “*dealing with prejudice based on my nationality*” were more pronounced than for married students. As discussed earlier in this section, more concerns and difficulties for single students in respect to their future upon returning to their countries as well as their finances were not surprising because their statuses were still students or unemployed in their home countries. Regarding the finding that single students perceived more difficulties for “*dealing with prejudice based on my nationality*,” I have two speculations on why that might be the case. First, compared to married students, they may have fewer opportunities to share their thoughts and feelings with someone very close while studying abroad. They had to figure out how to handle such sensitive situations on their own. Second, many of the single students recruited for the study were still college students, and not being able to deal with unexpected remarks from others efficiently might stem

from a lack of opportunities to socially interact with others in the community as often as married students.

In respect to the highest education level completed, I found that students who had only completed high school education experienced more difficulties in many areas than those who had completed education beyond high school. In particular, those with high school educations reported more difficulties in school-related tasks such as "*participating in class*" and "*doing group work in class*" than those with beyond high school education. This was not surprising at all because those with beyond high school education must have had more experience in handling school-related tasks and learned to take more initiatives in dealing with them independently. As Bandura (1994) defines self-efficacy as "people's belief about their capabilities to produce designated levels of performance that influence over events that affect their lives" (p. 71), I believe that students with beyond high school education must have had a higher level of self-efficacy than those with only high school education, and that having experienced overcoming similar challenges in their past must have given them a boost of self-confidence and led them to perceive fewer difficulties in such school-related tasks. Moreover, as was the case with the effect of marital status on difficulties, those with high school education tended to be single, college students, and/or unemployed, so they must have felt more insecure about their futures. This pattern was also observable in the relationship of students' age and degrees of difficulties. As they age, degrees of difficulties that students experienced regarding their future upon returning to their home countries appear to decrease.

It is also noticeable that those with only high school education completed seemed to have experienced more challenges in creating and maintaining new interpersonal

relationships while studying abroad than those with beyond high school education. This could be due to a lack of experiences among those with high school education, many of who were single and college students in their home countries, in interacting with people with different backgrounds, skills, and interests on a daily basis.

Another factor that I examined was the length of study in the program. I found that students who had completed two or more terms felt more difficulties in maintain their student visa status than those with only one term. Due to the nature of F-1 immigration visa that most of the international students need to obtain in order to enter the United States as students, their stays in the United States are all temporary. Moreover, if they wish to extend their studies in the United States by enrolling in school, they need to demonstrate in the form of a bank statement that they have sufficient funds to cover the cost of tuition and other living expenses (U.S. Citizenship and Immigration Services, 2016). If students are maintaining at least the half-time status (i.e., 6 credits for undergraduates, and 4 credits for graduates) in degree-programs and a good academic standing, they can seek for on-campus work opportunities to supplement their funds (Mānoa Career Center, 2016). However, the students enrolled in the intensive English program are taking non-credit courses. Therefore, they are not eligible to work even on campus. Without any lawful opportunities to make additional income to supplement their limited funds, those who are unsure about directions to take in the future and/or do not wish to return to their home countries upon completing their initially proposed duration of their studies may find it difficult to maintain their student visa status in the United States as long as they can.

To sum up, students experienced higher degrees of difficulties in school life, and some of them were academic-related activities, and some were not. On the contrary, students experienced varied degrees of difficulties in the activities in their personal lives. One of the most noticeable difficulties for students was that many of them felt uncertain about their lives after studying abroad. As many challenges for study abroad students are related to cultural transition (Brisset et al., 2010), it has become clear that they had serious concerns about making transitions back to their lives in their home counties even while studying abroad. By taking several aspects of demographic information into consideration, it has also become even more apparent that young single students who had only completed their high school education and/or were enrolled in undergraduate programs in their home countries tended to stay in the program for a short time (i.e., only one term of 10 weeks), and that they tended to perceive more challenges regarding their future directions.

Research Question 2

The second research question delineated from whom students receive social support to deal with difficulties that they encounter in school and personal lives while studying abroad. I developed and used two scales: one for school life, and another for personal life. Each scale had the exact same items. There are a few general findings that emerged from the descriptive statistics of the ratings given to the school and personal life scales as well as responses to the open-ended questions.

First, in dealing with school and non-school related difficulties while studying abroad, students appeared to receive support from those who could communicate with them in the same first languages (L1s). It is interesting to find out that students also

reached out to their friends and family back home and friends outside school in dealing with school related difficulties although family and friends were not likely to know any details about students' school life. Despite a lack of knowledge about what students were going through in school abroad, being able to communicate in the same L1 must be crucial in assessing difficulties and coming up with solutions. In a similar fashion, when dealing with difficulties in personal life, students seemed to rely on individuals who could communicate with in their L1s (e.g., "*friends or family in my country*," "*friends in school who speak my native language*," and "*friends outside school who speak my native language*"). The heavy reliance on the use of their L1s to receive necessary support in dealing with difficulties that they face is also evident among comments that students left for the open-ended questions in both school and non-school settings. Given that students were enrolled in in the intensive English program to improve their English proficiency, it is understandable that students chose to access those who could use students' L1s. This is also in line with the finding about the negative relationship between students' proficiency levels in English and degrees of difficulties that students had to deal with in school and non-school settings. This finding about the dependence on L1-speaking individuals for social support also agrees with the argument that that a lack of proficiency in the host language, English, in this case, may encourage students to form their own cultural subgroups (Hayes & Lin, 1994).

Second, although students tended to rely on those who could use their L1s to communicate with them, in school life, students seemed to seek for support from immediate friends regardless of their L1s. In other words, they received support from their peers to deal with school-related difficulties by using both their L1s and second

languages (L2s). It is very reasonable that students sought to receive support from their peers despite possible difficulties in communicating with each other in English. Since their peers could have had better understandings of what difficulties students were facing and they might have experienced similar difficulties in the school context, they might have been be able to offer appropriate help or suggestions on how to deal with certain difficulties efficiently.

Third, students seemed to seek for significantly more support from the program administrative personnel and teachers with different L1s in dealing with school-related difficulties than in dealing with personal difficulties outside the school settings. However, when I closely examined from whom, either the administrative personnel or teachers, students received more support, it became clear that students tended to reach out to teachers that they met in class every day for not only school-related difficulties but also personal-life related ones. In the program, once students are assigned to a class, they meet with their teachers every day, at least for 50 minutes (i.e., the length of one class). As students build bonds with other students in class, they also build close relationships with their teachers. By seeing each other every day and getting to know each other as a school term progresses, it is not surprising that students feel a sense of trust in teachers and start to feel comfortable in sharing their difficulties and concerns with them. In addition, it is possible that students tend to reach out to their teachers for support, especially regarding difficulties in the school setting. Not only do teachers have an understanding of in what contexts students are having difficulties due to a lack of English proficiency and/or a lack of experience in doing similar tasks, but also they may have knowledge of other students that students could be experiencing difficulties with.

Furthermore, sometimes teachers could be the only non-peer individuals that students get to know in the early stage of studying abroad. Although the program personnel (e.g., several administrative staff, the Director) always welcome students who wish to speak with them, they are physically located in the program office, which is away from classrooms where students spend most of their times on campus. Perhaps, students do not think that accessing to the program personnel is as easy as accessing to their teachers due to the physical distance between their classrooms and the program office.

As was the case with Research Question 1, I examined the Social Support data in terms of some demographic information collected from the participants such as gender, marital status, the highest education level completed, the length of study in the program, and age. By exploring the data together with these demographic factors, several patterns emerged.

First, I found that gender was related to differences in the use of social support from "*friends outside school who speak different native languages*," and male students reported receiving more support in dealing with school difficulties from non-school friends with whom they needed to use English to communicate than female students. I speculate that this might have been due to a much smaller proportion of male students compared to female in the program. Only 25.67% of the students included in the master dataset were male. In other words, about three fourth of the students in the program were female. While female students might have had an easier time in receiving necessary support from the same gender peers in school because there were quite a few female students enrolled, male students might have had to go beyond the school context to make such friends that they could rely on to receive help instead of trying to get support from a

limited number of male classmates in school. However, this finding could be limited to this particular study, and readers should interpret this finding with caution.

Secondly, the length of study in the program seemed to play a role in predicting differences in the use of social support between those who had only completed one term of study and those who had completed two terms or longer. More specifically, I found that students with the longer length of study were able to receive more social support from a variety of individuals regardless of their L1s. This makes sense because they must have been able to get to know and make more connections with a larger number of people while staying abroad for a longer period of time than those who stayed here for only one term. In addition, they must have felt easier and less resistant in communicating with those individuals even in English due to the increasing routine use of English during their study abroad than those who studied abroad for a short time.

On the contrary, students with only one term of study in the program appeared to receive more social support from "*host family or roommates who speak my native language*" for school-related difficulties than those with a longer period of studying abroad. As I discussed in the section for Research Question 1, many students who enrolled in the program for only one term and who were included in the dataset for this study came to the United States to fulfill a requirement for their home institutions in their countries, and they usually stayed in dormitories with fellow students in the same cohorts from their home institutions. Moreover, those who decided to study abroad only for one term often seemed to choose the homestay-type accommodation and be assigned by homestay agents to such families in which some host family members could use students' L1s although their proficiency in students' L1s could greatly vary. I am speculating that

especially those who stayed in dormitories with other students from the same home institutions and those who chose to homestay evidently could have received necessary assistance or suggestions for school-related difficulties by using their L1s.

Thirdly, in respect to marital status, single students in the dataset reported receiving more support from "*neighbors who speak my native language*" for school difficulties and from "*friends in school who speak my native language*" for personal difficulties than married students. It is important to note that the average rating for "*friends in school who speak my native language*" (M_{single} = 3.28) is much higher than "*neighbors who speak my native language*" (M_{single} = 1.42). One thing common about these is that single students chose to receive more support from these individuals with whom they could communicate in their L1s. The finding that single students reported receiving more support from "*neighbors who speak my native language*" than married students may sound strange at first. However, as mentioned previously, many of the single students who only enrolled in the program for a short time tended to live in dormitories with other fellow students from their home institutions. If fellow students from whom students received support were not living as roommates but were living in the same dormitories, they might have considered their fellow students as "neighbors," and this finding might have emerged in this study.

Fourthly, when it comes to the highest education level completed, it is interesting to find that those with only high school education relied on receiving more support from individuals with whom students could discuss their school and personal difficulties in their L1s than those with education beyond high school (e.g., "*host family or roommates who speak my native language*," "*neighbors who speak my native language*," and

"*friends or family in my country*" for school difficulties; "*friends in school who speak my native language*" and "*host family or roommates who speak my native language*" for personal difficulties). Again, this might have been especially because many of those who were counted in the group of students for the high school education completed could be the students who joined the study abroad program for only one term with other fellow students from their home institutions and stayed in dormitories while studying abroad. However, although the average ratings were lower than the other sources of support for students, those with beyond high school education ($M_{\text{higher ed}} = 1.72$) seemed to receive more support from "*host family or roommates who speak different native languages*" than those with high school education ($M_{\text{high school}} = 1.11$). I have two speculations on why this might be the case here. One is that many of the students with high school education completed could be those that I have mentioned (i.e., living in dormitories with other fellow students), and that they simply did not live with host family or roommates who could speak different L1s. Another is that some students with education beyond high school could be those who might have left their jobs before studying abroad or chosen to study abroad upon completing their undergraduate or graduate studies, and that they chose to live with roommates or host families who used English as a means of communication.

Lastly, as for the effect of age on the use of social support, I found two significant linear relationships in school life (i.e., "*host family or roommates who speak my native language*" and "*friends or family in my country*"), and four in personal life (i.e. "*friends in school who speak my native language*," "*friends in school who speak different native languages*," "*host family or roommates who speak my native language*," and "*friends or*

family in my country"). As for these six significant linear relationships between age and the use of social support, the general finding was that as students' age increased, the amount of social support that they received decreased. In other words, the younger they were, the more social support that they required in dealing with difficulties. This finding seems reasonable in that as people age, we have more experiences in life and could be more flexible and resourceful in handling difficult situations and concerns. In addition, this can also be supported by Bandura's (1994) notion on self-efficacy, which can be developed through various mastery experiences. On the other hand, those in late teens and early twenties might feel it too daunting to efficiently assess such difficult situations and concerns and come with solutions on their own. Thus, they tend to receive more support by communicating in their L1s than the older students.

Moreover, I also found that as age increased, students received less social support from school friends who share different L1s in dealing with personal difficulties. It seems that older students are less open to discussing their personal concerns and difficulties with their school friends from different counties of origin in English than younger ones. This might mean that older students could have other types of individuals that they could reach out to receive necessary support in dealing with personal difficulties. Or, they could have been able to handle difficult situations and concerns without relying on peers in school with different L1s.

To sum up the findings related to Research Question 2, I have discussed five observations regarding the use of social support in dealing with difficulties while studying abroad. First, students tended to receive support from those who shared the same L1s to communicate with. Given that students were enrolled in the intensive

English program, it was not surprising. Students also reached out to those who did not necessarily have background information about their school lives but spoke the same L1s in dealing with school difficulties. This indicates that not having the network of social support that students had in their home country can pose challenges for them to function efficiently in the new study abroad context, and that they naturally seek for support from those who share the same L1s to compensate for a lack of such a familiar L1 support network. Secondly, in dealing with school-related difficulties, students tended to rely on their classmates and teachers in the immediate school context regardless of languages that they had to use. Thirdly, the longer the length of study, the more varieties of L1 and L2 social support resources students used. Fourthly, younger single students with only high school education completed and the shorter length of stay tended to go to L1-speaking host family members, roommates, and friends in school in order to deal with difficulties. Lastly, older students appeared to require less support than younger one, and it could be because of their wider-range of general experiences in life so far as well as a higher level of self-efficacy (Bandura, 1994).

Research Question 3

The third research question aimed to examine the relationships among the three latent constructs, Perceived Difficulties, Social Support, and Degrees of Acculturation. The results of the SEM confirmed that the model fit the data to some extent, but provided mixed support for the hypotheses I had set forth based on the conceptual framework as presented in Figure 4.1.

First, the hypotheses about the relationships between Perceived Difficulties and Social Support were supported. More specifically, School Difficulties (SD) were

positively related to the use of L2 Social Support (L2SS) and L1 Social Support (L1SS) in the school setting, and Living Abroad Difficulties (LAD) were also positively related to the use of L2 Non-Peer Social Support (L2NPSS) and Mixed Peer Social Support (MPSS). These results provided strong support for a part of the conceptual framework where the more difficulties students experience in identifying and assessing tasks in intercultural contexts, the more support that students seek out in order to complete tasks. By looking closely at the strength of the relationships among the constructs for Perceived Difficulties and Social Support in terms of standardized parameter estimates, we can observe some interesting patterns. While the relationship between SD and LISS was stronger than that between SD and L2SS, the relationships between LAD and L2NPSS and between LAD and MPSS were roughly the same in terms of the strength. In addition, we can observe that the relationship between SD and L1SS was much stronger than the other three relationships between Perceived Difficulties and Social Support. In other words, when students experience difficulties in the school setting, students receive more support from those with whom they can negotiate meaning in their L1s than those with whom they have to use English to communicate. Furthermore, when students encounter difficulties in their personal lives, they receive roughly equal amount of support from English-speaking non-peers (such as teachers and administrative staff) and peers regardless of the languages they use to communicate (i.e., their L1s or English).

The second part of the path model concerned the hypotheses I had proposed regarding the seven relationships between the four constructs of Social Support (i.e., L1SS, L2SS, L2NPSS, and MPSS) and the two constructs of Degrees of Acculturation [i.e., Co-National Identification (CNI), and Host-National Identification (HNI)].

However, the results of the SEM indicated that the relationship between MPSS and HNI was only the statistically significant positive relationship found in the data, and that the other six paths were all statistically non-significant.

I have some speculations on why only the path between MPSS and HNI turned out to be significant while the others did not. One may have to do with the average length of the study in the program among the students who were recruited for the study. Although data collection was conducted at the end of a ten-week term for a total of three terms, the average length of study in the program was 1.53 terms (*SD* = 1.16), and about 75% of the students in the sample stayed in the program only for one term. The average length of residence in the United States was 6.27 months (*SD* = 5.39) ranging from 10 weeks to three years, and roughly 90% of the students in the dataset stayed in the United States for one year or less. As discussed in the section on methodological characteristics in the 16 previous studies focusing on relationships among social support, acculturation, and/or adjustment outcomes (Brisset et al., 2010; Chirkov et al., 2008; Dao et al., 2007; Jou & Fukuda, 1996; Lee et al., 2004; Milville & Constantine, 2006; Pedersen et al., 2011; Playford & Safdar, 2007; Ramsay et al., 2006; Rudmin & Ahmadzadeh, 2001; Van de Vijver et al., 1999; Ward & Kennedy, 1993; Ward and Kennedy, 1994; Ward & Rana-Deuba, 1999; Ward & Rana-Deuba, 2000; Wohlgemuth & Betz, 1991), the overall average length of residence among participants was about two years. The shortest mean length of residence identified in my review was 10.88 weeks for a group of 178 secondary school students in New Zealand in Ward and Kennedy (1993). It is possible that some of the students who stayed in the program only for one term could have had the longer length of residence in the United States (e.g., transfer students from/into different

language programs, citizens or permanent residents). Due to a large proportion of students who stayed in the program and resided in the United States only for one term of 10 weeks, it is highly likely that many students in this study might not have gone through changes in their CNI and HNI. At the same time, the Acculturation Index scales which were used to measure degrees of acculturation in terms of CNI and HNI might have been more sensitive to students' length of residence abroad than I had anticipated to identify meaningful changes in Degrees of Acculturation among this set of ESL study abroad students.

Moreover, the SEM results identified that the relationship between MPSS and HNI was statistically significant, and that the use of MPSS in the personal setting was positively related to students' HNI. This positive relationship between MPSS and HNI might have been attributable to some unique characteristics associated with this study. The geographical location of this study was Hawai‘i, where a mix of ethnic, cultural, and linguistic backgrounds are uniquely observed among residents. More specifically, more than a half of the state population is Asian-origin and about 25% of the population five years and older residing in the state use languages other than English at home (State of Hawai‘i Department of Business, Economic Development & Tourism, 2015, 2016). In such a socioculturally diverse context, it is easily imaginable that even students who enrolled in the program and stayed in Hawai‘i only for 10 weeks could have observed many residents code-switching between English and other languages and associated such a mix of language use in everyday interactions with how host-nationals in Hawai‘i communicate with each other. Moreover, a great majority of students in the current study had Asian origins (i.e., Japan, 54.4%; South Korea, 34.2%; China, 3.2%; Thailand, 2.7%;

Taiwan, 2.1%; European countries, 3.2%), and those Asian students might have felt more blended and comfortable by staying in Hawai‘i than by staying in the other U.S. states. Consequently, those students with the short length of stay in Hawai‘i might have been able to connect to and develop relationships with local people from whom they could receive necessary support for their personal difficulties while studying abroad, and that might have been translated to the positive relationship between MPSS and HNI. Therefore, this finding has to be carefully interpreted with this unique contextual information.

As for a methodological consideration, I have another observation on why many of the paths between Social Support and Degrees of Acculturation turned out to be non-significant but the one between MPSS and HNI was found to be significant. When checking the dimensionalities of CNI and HNI earlier in the study, the correlation between these two variables was examined. It was .33, which was significant at $p < .01$. Ward (1999) reported that the correlations between CNI and HNI ranged from -.04 to .12 except for one study focusing on Chinese in Singapore ($r = .32$) in the review of psychometric properties of the Acculturation Index employed in her own previous five studies. Regarding this significant correlation between CNI and HNI among Chinese participants in Singapore, she speculated that this correlation could have been due to the fact that the Chinese participants shared similarities in terms of ethnic and linguistic backgrounds with host-nationals in Singapore, and that the similarities in ethnic and linguistic backgrounds might have increased the relationship between co-national and host-national identifications. I believe that this observation by Ward may be applicable

to explain the correlation between CNI and HNI in this study and also can provide strong support for the finding of the positive relationship between MPSS and HNI in the study.

As a follow-up analysis, I ran SEM after eliminating non-significant paths between Social Support and Degrees of Acculturation. As presented in Figure 4.2, the SEM results further provided support for the positive relationships between Perceived Difficulties and Social Support. However, the path model in Figure 4.2 also indicated that students receive more support from L2 speaking non-peer individuals (i.e., teachers, school administrative personnel) than from their L1 and L2 speaking peers when they deal with difficulties in their personal lives. At first, this finding can sound puzzling. However, given that the length of the study in the program was relatively short (i.e., 10 weeks) for many of the students in the sample, as I discussed earlier, students might have felt a sense of trust and built a comfortable relationship particularly with their teachers through their daily interactions in and outside the classrooms. In addition, many students who stayed in the program for a short time might have felt it inappropriate to receive support from their own peers in dealing with non-school-related issues, most of who could also be short-term study abroad students and could have been judged not to have adequate knowledge and experiences to offer much needed support for them. These could have led them to receive more support from their L2 speaking non-peer individuals in school than from their peers.

Conclusions

This study aimed to examine relationships among Perceived Difficulties, Social Support, and Degrees of Acculturation by collecting information from a group of ESL study abroad students by using the survey scales and by utilizing SEM. I discussed the

findings relevant to each research question, and expanded my initial findings to the third research question by running some follow-up analyses. Based on these findings I reached and observations I made, there are some implications for the conceptual framework that I described in Chapter 1.

The conceptual framework represented the societal-level and individual-level intercultural contacts separately by following the macro and micro perspectives of culture. This study focused on the individual level intercultural contact from the micro perspective of culture, which considers that individuals vary greatly in terms of many factors such as age, personality, gender, language, and education.

Once students arrive in a new location for their study abroad experiences, they immediately have to engage in a variety of tasks. As I defined acculturation as a learning process for optimization in Chapter 1, I suppose that any task in which students have to engage in an intercultural context can give them an unlimited number of opportunities to look for and implement better solutions. In other words, they can learn to optimize their thoughts and actions to reach the most efficient results in a given intercultural context. In the process of optimization learning, students are to identify and assess tasks first. As discussed as the findings for Research Question 1, for instance, students' past educational experiences seem to play a role in how difficult students find completing school-related tasks. In other words, those with more experiences in school find it easier to complete school-related tasks, but those with fewer experiences in school find it more difficult to complete such tasks. In addition, those with only high school education completed found it more challenging to create and maintain interpersonal relationships while studying abroad compared to those with education beyond high school level. These findings that

students with more experiences in school and non-school, professional or personal lives found it less difficult to complete various tasks than those with fewer experiences can be further supported by Bandura's (1994) notion of self-efficacy in that "the most effective way of creating a strong sense of efficacy is through *mastery experiences* [emphasis in original]" (p. 71).

As students' past experiences come into play in identifying and assessing given tasks that they need to complete, this study also found that the length of study and residence in the study abroad context could influence the process of task identification and assessment as well as social support that students receive in dealing with difficulties that they encounter. I suggest including "the length of study/residence in intercultural context" in characteristics that individuals can vary in.

Moreover, the results of the follow-up SEM analyses have clearly indicated that students' English proficiency levels can predict degrees of difficulties that students can experience both in school and non-school settings. As seen in the conceptual framework, the notion of language proficiency was included in the original set of characteristics that individuals can vary in. However, by closely examining the effect of student's English Proficiency Level on Perceived Difficulties and Social Support in the path model, it became more evident that students' proficiency levels in English are negatively related to degrees of difficulties in the phase of task identification and assessment. In other words, this study confirms our understanding of how crucial it is for students to be able to use the target language in new intercultural contexts so that they can gain fruitful experiences while studying abroad.

In the second component of acculturation process, students are to engage in negotiations of meaning with others to find optimal strategies and set goals to get tasks done. I have found that students tended to receive support from those who shared the same L1s in dealing with difficulties, but students with the longer length of study in the program also tended to have a variety of social support resources regardless of languages that they used to communicate. Also, those who were older were found to be less dependent on support from others in dealing with difficulties than those who were younger. Once again, I speculate that self-efficacy plays a role in the negotiations of meaning here. As discussed in Chapter 1, self-regulation, by which students manage their thoughts and actions in order to reach desired outcomes or goals, is crucial in discrepancy production and discrepancy reduction processes (Lee et al., 2003). Along with self-regulation, self-efficacy is a key component for goal setting in the conceptual framework. In the light of the conceptual framework, self-efficacy is considered as task specific confidence (Bandura, 1997). Therefore, self-efficacy is built primarily through training and practice. Role-modeling is also found to be useful to raise self-efficacy (Locke, 2001). Furthermore, self-efficacy is important in the conceptual framework because (a) people with high self-efficacy set higher goals than people with lower self-efficacy when goals are self-set, and (b) those with high self-efficacy are also more committed to assigned goals, find and use better strategies to attain the goals, and respond more positively to negative feedback than those with low self-efficacy do (Locke & Latham, 2002).

Moreover, it is important to remember that social support can be in the form of "psychological and material resources intended to benefit an individuals' ability to cope

with stress" (Cohen, 2004, p. 676). According to Bandura (1994), one of the four sources for strengthening one's self-efficacy is social persuasion, which means that those who are persuaded by others that they "possess the capabilities to master given activities are likely to mobilize greater effort and sustain it than if they harbor self-doubts and dwell on personal deficiencies when problems arise" (Bandura, 1994, p. 72). Combined with such psychological support to help them strengthen their own beliefs in their task-specific capacities and a series of experiences in various settings that students have acculturated, they can engage in meaningful negotiations of meaning in intercultural contexts.

The third component of the acculturation process is acculturative change in terms of cultural identifications. In this study, I was not able to fully observe how the use of different social support resources is related to changes in students' cultural identifications, co-national identification and host-national identification. The lack of measurable changes in students' cultural identifications could be due to the short length of the study as well as the length of residence in the United States among many of the students who participated in the study. However, given that the relationship between MPSS and HNI was significant and that they were positively related, I could argue that students had experienced acculturative changes to some extent, and that this study offers partial support to this component in the conceptual framework. As discussed earlier, observed changes in HNI among participants in the study could have been due to some contextual factors that made this study unique from other acculturation studies. Therefore, future studies are needed to examine how the negotiation of meaning among study abroad students is related to acculturative changes. Recruiting students who have the longer length of study and residence in an intercultural context may shed more light

on how changes in students' cultural identifications could be related to acculturative outcome, sociocultural adaptation in the last component of the acculturation process.

Limitations

Although I have tried to minimize obvious limitations while designing and conducting the study, there are still some that I need to report here. The first limitation is related to the number of participants in the study. The total number of participants was less than 200. Given that I examined relationships among latent variables related to Perceived Difficulties, Social Support, and Degrees of Acculturation by using SEM, it would have been ideal to have a bigger sample size. Such a bigger sample size would have provided more evidence of validity for interpretations that I have made based on a series of analyses.

The second limitation is also related to participants recruited for this study. Not only they were in the program where I have had an instructor position, but they were also asked to complete the survey scales for the study in their classes. Participants received the information that they could freely decide not to participate in the study or withdraw their participation from the study at any time orally from their teachers who helped me administer the scales in their classes and visually in the oral consent form given to them at the onset of data collection. However, given that data collection was conducted in class and that their teachers were giving out the scales for them to complete, I cannot deny the possibility that some students might have felt pressure to participate in the study.

It would also have been reasonable to recruit participants from different intensive English programs in order to increase sample size as well as variability in demographics and backgrounds of international students. This would have helped me more with

generalizability of interpretations from this study to a new context. For example, it would have been great if the sample had included students who had a longer length of stay in the United States. As I discussed earlier in this chapter, one of the reasons that six out of the seven pathways between the latent variables for Social Support and Degrees of Accumulation were non-significant could be due to the fact that many of the students in the sample had a relatively short length of study in the program as well as residence in the United States, and that the Acculturation Index scales might not have been suited to measure degrees of acculturation in terms of cultural identifications for such students.

Although I was fully aware of these limitations for generalizability of the findings from the study, I decided to focus on the current location as a site for the study and the group of students from this location to investigate my research questions. One of the reasons is that I have not come across any studies focusing on the same type of students in an intensive English program for acculturation studies. Another is that I had a good amount of knowledge about the program and types of students in the program, and that working with those students in the program was something I did on a daily basis. In addition, I had a good working relationship with the administrative personnel of the program and other teachers. In any research setting, having a cooperative relationship with others can be crucial to get things done smoothly. I also needed teachers to provide comments and feedback on the scales as well as data collection so that I could be made aware of. These reasons seemed more important to me than trying to recruit participants from other study abroad programs.

The third limitation is related to the survey scales used in the study. As mentioned in the section on sources of validity evidence in Chapter 3, I designed and

developed two of the three scales used in this study. Although I carried out a pilot study with an earlier version of the scales with ESL students who were similar to those who were recruited for this study, the number of students who participated in the pilot phase of the study was only 40. With the responses collected from those 40 students, I was not able to examine the internal structure of each scale before actually conducting the current study. It would have been helpful if I had been able to conduct another pilot study with a larger group of students. However, I am hoping that these scales can be modified based on the findings of the study and can also be used in future studies.

In addition, it would have been useful if I had collected information on students' accommodations as a part of the demographic information. In this study, I have speculated that many of the students who had completed high school education and joined the intensive English program while they were still enrolling in higher education in their home countries were staying at dormitories with their fellow students from home institutions. The information on students' accommodation while studying abroad might have helped me gain more insights into how students' choices of accommodations would influence degrees of difficulties that they encounter and sources of social support that they utilize in dealing with difficulties.

Practical Implications

Based on the findings in this study, there are a few suggestions that I would like to share with those who work with study abroad ESL students. First, for ESL instructors and program administrative personnel, I would like to remind them that they remain welcoming and listen to students when they come to talk to them. This study has found that even for difficulties related to students' personal lives, they reach out to their L2

speaking instructors and program personnel more than their L1 and L2 speaking peers. Therefore, it is important for ESL instructors and program personnel to be able to offer appropriate guidance and support for both school and non-school related issues which students may face while studying abroad.

Another finding is that many ESL students, especially those who were enrolled in colleges or universities in their home countries and those who had left their jobs before participating in the study abroad ESL program, seem to have serious concerns about their futures upon the completion of their study abroad experiences. Some students also noted that job hunting was very competitive in their home countries such as Japan and South Korea, and being able to use English well was considered to be critical for successfully landing on a job they desire. I believe that it will be beneficial for ESL instructors to provide opportunities in their classes for their ESL students to explore their future interests and paths by having them engage in different tasks such as conducting research projects on their future career choices, giving a speech on their passions, attending a career fair on campus or in community, and participating in role-plays for job interviews. Based on my experiences of working with many International ESL students on a daily basis for the past decade, for many students, studying abroad appears to give them a perfect opportunity to objectively reflect on their pasts, evaluate their interests and skills, and plan for their lives after returning to their home countries because they are physically not in their familiar settings at home and do not have regular school and work responsibilities they had in their home countries.

Second, instructors at students' home institutions can also support study abroad students before students leave their home countries for their study abroad destinations.

For instance, in this study, I have found that students' proficiency levels in English are negatively related to degrees of difficulties that students perceive both in school and non-school settings. In other words, the lower proficiency levels in English they have, the higher degrees of difficulties they perceive. Moreover, I have found that students who graduated from college or university reported lower degrees of difficulties in completing school-related tasks than those who graduated from high school.

There are several things that instructors at home institutions can do to help such students make smooth transitions to their new lives abroad. Of course, students do not have to have very high proficiency levels in English before they join study abroad programs to improve their English skills. However, being able to understand what is being said and respond to their interlocutors in English even with simple answers can be crucial at the onset of their study abroad periods. Therefore, I think that equipping students with at least basic English skills is very important before they leave for their study abroad destinations. In addition, I believe that having students engage in activities which are common in ESL classes such as pair work, group discussion, and group projects, can provide beneficial opportunities for students to get used to successfully participating in more student-centered activities so that they feel more or less comfortable in engaging in such activities when they are asked to do so in ESL classes.

Equally important is that instructors at students' home institutions keep channels of communication open with their students during the study abroad period. As mentioned earlier, many ESL students in this sample voiced concerns about their lives after their study abroad experiences. Instructors at home institutions can communicate with their students by using emails, text messages, or social media tools such as Facebook and

Twitter. Knowing what their students are experiencing and thinking while studying abroad can help them not only guide their students to readjust to their lives in their home countries but also lead them to start lives after study abroad with new goals.

Suggestions for Future Research

There are several directions that I think will be interesting to take in order to further understand the acculturation process experienced by international study abroad students. First, a more qualitative study to examine the nature and kinds of social support resources may be useful because this study focuses only on the amount of social support use by employing the Likert-scale items. By interviewing international students individually or in group, a richer and more in-depth picture surrounding the use of social support may emerge, for example, how they find and build their social support networks in a new intercultural location, how their living arrangement (i.e., live in a dormitory, rent an apartment or house with a roommate, live with family) may influence their choice of social support resources, etc. Second, it would be interesting to look into the availability, the use, and the satisfaction of social support resources among international students. Each of these may differently account for degrees of acculturative stress that international students experience during negotiations of meaning with others. In addition, the satisfaction of social support resources that they use may be closely related to acculturative changes in their cultural identifications because having high satisfaction about the use of their social support resources might lead them to feel closer to their host nationals or their co-nationals.

Third, since I have a strong interest in issues related to second language acquisition and learning, I am interested in examining how international students carry

out negotiations of meaning with other speakers when dealing with certain school-related tasks. This could be done by collecting recorded interactions among speakers, and employing a conversation analysis technique to reveal what kinds of communication strategies are used to deal with communication difficulties such as misunderstanding, unknown vocabulary, and a lack of background knowledge relevant to a topic being discussed. In addition, it would be interesting to examine how the use of communication strategies varies depending on students' proficiency levels in English.

Lastly, as Berry urges (2009) researchers to examine the psychological changes that individuals experience in new intercultural contexts as well as their adaptation outcomes, it may be interesting to extend the scope of this study by including psychological adjustment and sociocultural adaptation in a future study. Since the average length of residence in the United States among many participants in this study was going to be about 10 weeks or so, it did not seem reasonable to include a sociocultural adaptation scale. In order to fully investigate sociocultural adaptation outcome among international students, I would need a group of students whose lengths of residence were longer than four months or more, since not much increase in sociocultural adaptation can be expected for those who stay in an intercultural location for less than four months (Ward et al., 2001). A sample of international students who stay in the United States for a long period of time would present an interesting case to help us understand how their experiences are related to acculturation outcomes in terms of their affective and behavioral domains. Moreover, such studies will surely shed more light on the acculturation process represented in the conceptual framework, and will help us

understand how international study abroad ESL students go about learning to optimize themselves in new intercultural contexts.

APPENDICES

Appendix A

Survey Instruments

Id # ( )

Please take some time to answer the following questions. These questions are about your life in Hawai‘i. Your honest answers will help to increase our understanding about international students like you. Your participation will not influence your grades at NICE Program at all. You can use your dictionary to look up words that you don't know. Thank you so much for your help!

Part A: Background information

Gender Male / Female (circle one)

Age _____

Nationality _____

Native Language _____

Marital Status Single / Married (circle one)

Terms at NICE Program _____ (in terms)

Length of stay in the USA _____ (in months and/or weeks)

Years of learning English _____ (in years)

Highest level of education you *finished* (circle one)

high school / 2-year junior college / 4-year university / graduate school / other (please specify:_____)

In Parts B, and C, please answer questions by circling one number that matches you.

Part B: Difficulties in your life

1.1 I worry about the following areas ***in my school life***.

		Never	Rarely	Sometimes	Often	Usually	Always
a	communicating with other students in English	0	1	2	3	4	5
b	communicating with teachers in English	0	1	2	3	4	5
c	getting feedback from teachers to improve my English ability	0	1	2	3	4	5
d	participating in class	0	1	2	3	4	5
e	doing individual work in class	0	1	2	3	4	5
f	doing group work in class	0	1	2	3	4	5
g	doing homework	0	1	2	3	4	5
h	taking tests or quizzes	0	1	2	3	4	5
i	getting used to university campus life	0	1	2	3	4	5
j	following school rules (attendance, class performance, language use)	0	1	2	3	4	5
k	making friends	0	1	2	3	4	5
l	keeping relationships with others	0	1	2	3	4	5
m	working toward my future plans	0	1	2	3	4	5

1.2 What else do you worry about **in *your school life***? Please write your answer if you have anything to add.

2.1 I worry about the following areas ***in my personal life***.

		Never	Rare	Sometimes	Often	Usually	Always
a	communicating with others in English	0	1	2	3	4	5
b	having money to support my life abroad	0	1	2	3	4	5
c	dealing with culture shock	0	1	2	3	4	5
d	living away from family in my home country	0	1	2	3	4	5
e	living alone	0	1	2	3	4	5
f	living with other people	0	1	2	3	4	5
g	making friends	0	1	2	3	4	5
h	keeping relationships with others	0	1	2	3	4	5
i	keeping my visa status	0	1	2	3	4	5
j	keeping my health	0	1	2	3	4	5
k	dealing with prejudice based on my nationality	0	1	2	3	4	5
l	working toward my future plans	0	1	2	3	4	5
m	getting a job after I return to my country	0	1	2	3	4	5

2.2 What else do you worry about **in *your personal life***? Please write your answer if you have anything to add.

Part C: Available help/advice

3.1 When I have difficulties ***in my school life***, I ***receive*** help or advice from the following people.

		Never	Rarely	Sometimes	Often	Usually	Always
a	teachers at school	0	1	2	3	4	5
b	the program director or academic coordinator	0	1	2	3	4	5
c	office staff	0	1	2	3	4	5
d	friends in school who speak my native language	0	1	2	3	4	5
e	friends in school who speak different native languages	0	1	2	3	4	5
f	friends outside school who speak my native language	0	1	2	3	4	5
g	friends outside school who speak different native languages	0	1	2	3	4	5
h	relatives or family in Hawai‘i who speak my native language	0	1	2	3	4	5
i	relatives or family in Hawai‘i who speak different native language	0	1	2	3	4	5
j	host family or roommates who speak my native language	0	1	2	3	4	5
k	host family or roommates who speak different native language	0	1	2	3	4	5
l	neighbors who speak my native language	0	1	2	3	4	5
m	neighbors who speak different native language	0	1	2	3	4	5
n	counselors	0	1	2	3	4	5
o	friends or family in my country	0	1	2	3	4	5

3.2 From who else do you receive help/advice when you have difficulties ***in your school life*** in Hawai‘i? Please write below if you have anything to add.

4.1 When I have difficulties ***in my personal life***, I ***receive*** help or advice from the following people.

		Never	Rarely	Sometimes	Often	Usually	Always
		←					→
a	teachers at school	0	1	2	3	4	5
b	the program director or academic coordinator	0	1	2	3	4	5
c	office staff	0	1	2	3	4	5
d	friends in school who speak my native language	0	1	2	3	4	5
e	friends in school who speak different native languages	0	1	2	3	4	5
f	friends outside school who speak my native language	0	1	2	3	4	5
g	friends outside school who speak different native languages	0	1	2	3	4	5
h	relatives or family in Hawai‘i who speak my native language	0	1	2	3	4	5
i	relatives or family in Hawai‘i who speak different native language	0	1	2	3	4	5
j	host family or roommates who speak my native language	0	1	2	3	4	5
k	host family or roommates who speak different native language	0	1	2	3	4	5
l	neighbors who speak my native language	0	1	2	3	4	5
m	neighbors who speak different native language	0	1	2	3	4	5
n	counselors	0	1	2	3	4	5
o	friends or family in my country	0	1	2	3	4	5

4.2 From who else do you receive help/advice when you have difficulties ***in your personal life*** in Hawai‘i? Please write below if you have anything to add.

Part D: Your experiences and actions in the United States

This part is about how you see yourself in relation to other people from the same home country and Americans in this country. Please think about the following questions about ***your lifestyle now in the United States,*** and circle one number that matches you.

5.1 Are your experience and behaviors ***in the United States*** similar to ***those of people from your home country***?

		Not similar ←					→ Very similar at all
a	clothing, what you wear	0	1	2	3	4	5
b	pace of life, how you pace your daily activities	0	1	2	3	4	5
c	general knowledge, what you know about things in general	0	1	2	3	4	5
d	food, what you eat	0	1	2	3	4	5
e	religious ideas/beliefs	0	1	2	3	4	5
f	material comfort, standard of living	0	1	2	3	4	5
g	activities that you do in free time	0	1	2	3	4	5
h	self-identity, idea about who you are	0	1	2	3	4	5
i	accommodation, where and how you live	0	1	2	3	4	5
j	values, what is important to you	0	1	2	3	4	5
k	friendships	0	1	2	3	4	5
l	communication styles	0	1	2	3	4	5
m	cultural activities that you participate	0	1	2	3	4	5
n	language	0	1	2	3	4	5
o	how you think about people in your home country	0	1	2	3	4	5
p	how you think about Americans in this country	0	1	2	3	4	5
q	what political ideas you have	0	1	2	3	4	5
r	how you think about the world	0	1	2	3	4	5
s	social customs, behaviors, manners	0	1	2	3	4	5
t	school activities that you participate	0	1	2	3	4	5

5.2 Are your experience and behaviors ***in the United States*** similar to ***those of Americans in this country***?

		Not similar ← → Very similar at all					
a	clothing, what you wear	0	1	2	3	4	5
b	pace of life, how you pace your daily activities	0	1	2	3	4	5
c	general knowledge, what you know about things in general	0	1	2	3	4	5
d	food, what you eat	0	1	2	3	4	5
e	religious ideas/beliefs	0	1	2	3	4	5
f	material comfort, standard of living	0	1	2	3	4	5
g	activities that you do in free time	0	1	2	3	4	5
h	self-identity, idea about who you are	0	1	2	3	4	5
i	accommodation, where and how you live	0	1	2	3	4	5
j	values, what is important to you	0	1	2	3	4	5
k	friendships	0	1	2	3	4	5
l	communication styles	0	1	2	3	4	5
m	cultural activities that you participate	0	1	2	3	4	5
n	language	0	1	2	3	4	5
o	how you think about people in your home country	0	1	2	3	4	5
p	how you think about Americans in this country	0	1	2	3	4	5
q	what political ideas you have	0	1	2	3	4	5
r	how you think about the world	0	1	2	3	4	5
s	social customs, behaviors, manners	0	1	2	3	4	5
t	school activities that you participate	0	1	2	3	4	5

Appendix B

The Letter of Exempt Approval

Office of Research Compliance
Human Studies Program

UNIVERSITY of HAWAI'I® MĀNOA

August 2, 2013

TO: Saori Doi
Principal Investigator
Educational Psychology

FROM: Denise A. Lin-DeShetler, MPH, MA
Director

SUBJECT: CHS #21470- "Social Relationships & Acculturation Process Among Study Abroad English as a Second Language (ESL) Students in the U.S."

This letter is your record of the Human Studies Program approval of this study as exempt.

On August 2, 2013, the University of Hawai'i (UH) Human Studies Program approved this study as exempt from federal regulations pertaining to the protection of human research participants. The authority for the exemption applicable to your study is documented in the Code of Federal Regulations at 45CFR 46.101(b)(Exempt Category 2).

Exempt studies are subject to the ethical principles articulated in The Belmont Report, found at http://www.hawaii.edu/irb/html/manual/appendices/A/belmont.html.

Exempt studies do not require regular continuing review by the Human Studies Program. However, if you propose to modify your study, you must receive approval from the Human Studies Program prior to implementing any changes. You can submit your proposed changes via email at uhirb@hawaii.edu. (The subject line should read: Exempt Study Modification,) The Human Studies Program may review the exempt status at that time and request an application for approval as non-exempt research.

In order to protect the confidentiality of research participants, we encourage you to destroy private information which can be linked to the identities of individuals as soon as it is reasonable to do so. Signed consent forms, as applicable to your study, should be maintained for at least the duration of your project.

This approval does not expire. However, please notify the Human Studies Program when your study is complete. Upon notification, we will close our files pertaining to your study.

If you have any questions relating to the protection of human research participants, please contact the Human Studies Program at 956-5007 or uhirb@hawaii.edu. We wish you success in carrying out your research project.

1960 East-West Road
Biomedical Sciences Building B104
Honolulu, Hawai'i 96822
Telephone: (808) 956-5007
Fax: (808) 956-8683

Appendix C

Instruction to Teachers

Hi teachers,

I am still collecting data for my dissertation, and this is the last round of data collection!

I would like you to give this survey to your students in IS class, and have them complete it in class. I am wondering if you could give this survey to your students in your IS class during the last few days of the instruction this term.

Some continuing students may say that they did it last term, but I am interesting in getting data from continuing students repeatedly. I will be putting together a survey package including survey sheets, the oral consent forms, and chocolate candies for their time to complete the survey. I will give you the package by the middle of week 9.

Please follow the steps below when giving the survey to your students:

1. Please read aloud the attached Oral Consent form to your students so that they will understand that their participation in this research is voluntarily, that there will be no risk involved, that I value their privacy, and that they can ask questions about the survey any time. After reading the Oral Consent form to your students, please give your students a copy of the consent form. They don't need to sign on the consent form.
2. Please pass out a set of the survey sheets to each student. **Each set has a unique ID code on it.** Please refer to the attached list of ID codes and students' names.
3. Please have your students complete the survey in class. If they need more time, feel free to have them to take it home and return it to you in class or me in the NICE office.
4. If your students find difficult words in the survey items, they can use their dictionaries. If you can, please help them by providing meanings of those words. Also, if they have other questions regarding how to answer the survey, please answer their questions if possible.
5. Once your students complete the survey, please collect them and return them back to me before you leave for your summer break.

Thank you so much for your help. I cannot do this without you!

Saori

Appendix D

Oral Consent Form

AGREEMENT TO PARTICIPATE IN RESEARCH
Social Support & Acculturation Process among Study Abroad English as a Second Language Students in the United States

Saori Doi, M.A. (Researcher), saori@hawaii.edu, 956-3464
Marie Iding, Ph.D. (Faculty Advisor), miding@hawaii.edu, 956-7507
Educational Psychology, College of Education
1776 University Avenue, Wist Hall 214, Honolulu, HI, 96822

Hello. My name is Saori Doi, and I am a doctoral student here at the University of Hawai‘i at Mānoa. I am conducting research for my doctoral degree. I am gathering information to understand how international ESL students are using different kinds of social support to deal with difficulties while studying abroad in the United States. I am writing to ask if you would be willing to participate in my research.

If you agree to participate, you will be asked to fill out the questionnaire. It will take about 10 to 15 minutes to complete. If you find difficult words in the questionnaire, you are welcome to use your dictionary or ask your teacher for meanings. I will also use the information of your Oral Production placement test, which you took at the beginning of this term.

Your privacy is very important to me. Therefore, I will not ask you for your name. I will write only an ID code on your questionnaire. This is to connect your responses to the questionnaire and your Oral Production placement test information.

There will be no risk for you from this research.

There will no immediate benefits for you by participating in this study. However, I hope to learn how international students build and use social support recourses. I also hope to help ESL teachers and ESL program staff to understand how your study abroad experiences are so that we can provide better support to you.

It is up to you whether to participate. You will be asked to answer some questions about your everyday thoughts and feelings while you study abroad in the United States. Some of the questions may be a little difficult to answer. Please do you best to answer those questions.

If you have any questions about this research, please ask your teacher now. If you have questions at a later time, you can contact me at my office phone, at my e-mail, or in person. Please keep a copy of this in case you would like to get more information about this research. If you don't receive reasonable answers to your questions, or have comments or complaints about your participation in this research, you can contact: Human Studies Program, uhirb@hawaii.edu, 956-5007, 1960 East-West Road, Biomed Bldg., Rm. B-104, Honolulu, HI 96822

Thank you for your cooperation!

Saori Doi

Appendix E

Correlation Matrix for the 20 Observed Variables for Perceived Difficulties

	PD1a	PD1b	PD1c	PD1d	PD1e	PD1f	PD1g	PD1h	PD1i	PD1j	PD1m	PD2a	PD2b	PD2f	PD2g	PD2h	PD2i	PD2j	PD2k	PD2l
PD1a	1.00	.82	.71	.70	.62	.72	.64	.65	.68	.72	.57	.60	.40	.37	.56	.58	.37	.38	.40	.37
PD1b	.82	1.00	.74	.78	.71	.75	.72	.74	.68	.80	.57	.57	.39	.40	.62	.62	.44	.45	.46	.38
PD1c	.71	.74	1.00	.75	.67	.65	.65	.68	.65	.71	.54	.55	.42	.36	.58	.59	.38	.44	.50	.41
PD1d	.70	.78	.75	1.00	.77	.77	.78	.76	.73	.80	.56	.56	.41	.35	.67	.67	.45	.51	.53	.40
PD1e	.62	.71	.67	.77	1.00	.74	.68	.68	.68	.70	.53	.52	.35	.33	.64	.64	.40	.46	.51	.40
PD1f	.72	.75	.65	.77	.74	1.00	.76	.71	.72	.73	.56	.54	.43	.34	.66	.66	.44	.48	.50	.37
PD1g	.64	.72	.65	.78	.68	.76	1.00	.80	.72	.81	.52	.52	.40	.31	.62	.63	.52	.51	.52	.32
PD1h	.65	.74	.68	.76	.68	.71	.80	1.00	.68	.74	.56	.51	.40	.34	.58	.61	.47	.47	.53	.37
PD1i	.68	.68	.65	.73	.68	.72	.72	.68	1.00	.81	.57	.54	.41	.37	.62	.67	.46	.50	.53	.40
PD1j	.72	.80	.71	.80	.70	.73	.81	.74	.81	1.00	.57	.55	.39	.36	.66	.70	.53	.53	.52	.38
PD1m	.57	.57	.54	.56	.53	.56	.52	.56	.57	.57	1.00	.41	.39	.39	.59	.63	.41	.49	.50	.76
PD2a	.60	.57	.55	.56	.52	.54	.52	.51	.54	.55	.41	1.00	.33	.36	.57	.55	.32	.39	.46	.34
PD2b	.40	.39	.42	.41	.35	.43	.40	.40	.41	.39	.39	.33	1.00	.19	.40	.41	.39	.37	.43	.43
PD2f	.37	.40	.36	.35	.33	.34	.31	.34	.37	.36	.39	.36	.19	1.00	.51	.48	.35	.33	.36	.36
PD2g	.56	.62	.58	.67	.64	.66	.62	.58	.62	.66	.59	.57	.40	.51	1.00	.89	.56	.59	.63	.49
PD2h	.58	.62	.59	.67	.64	.66	.63	.61	.67	.70	.63	.55	.41	.48	.89	1.00	.56	.62	.66	.53
PD2i	.37	.44	.38	.45	.40	.44	.52	.47	.46	.53	.41	.32	.39	.35	.56	.56	1.00	.62	.47	.36
PD2j	.38	.45	.44	.51	.46	.48	.51	.47	.50	.53	.49	.39	.37	.33	.59	.62	.62	1.00	.57	.51
PD2k	.40	.46	.50	.53	.51	.50	.52	.53	.53	.52	.50	.46	.43	.36	.63	.66	.47	.57	1.00	.47
PD2l	.37	.38	.41	.40	.40	.37	.32	.37	.40	.38	.76	.34	.43	.36	.49	.53	.36	.51	.47	1.00

Appendix F

Correlation Matrix for the Eight Observed Variables for Social Support in School

	SS3a	SS3b	SS3c	SS3d	SS3e	SS3f	SS3g	SS3o
SS3a	1.00	.54	.56	.29	.48	.19	.32	.35
SS3b	.54	1.00	.61	.15	.35	.12	.40	.37
SS3c	.56	.61	1.00	.24	.40	.24	.38	.22
SS3d	.29	.15	.24	1.00	.30	.51	.24	.38
SS3e	.48	.35	.40	.30	1.00	.28	.42	.35
SS3f	.19	.12	.24	.51	.28	1.00	.42	.38
SS3g	.32	.40	.38	.24	.42	.42	1.00	.33
SS3o	.35	.37	.22	.38	.35	.38	.33	1.00

Appendix G

Correlation Matrix for the Eight Observed Variables for Social Support in Personal Life

	SS4a	SS4b	SS4c	SS4d	SS4e	SS4f	SS4g	SS4o
SS4a	1.00	.65	.69	.28	.50	.37	.40	.33
SS4b	.65	1.00	.78	.16	.39	.35	.44	.21
SS4c	.69	.78	1.00	.19	.41	.38	.43	.17
SS4d	.28	.16	.19	1.00	.42	.50	.19	.36
SS4e	.50	.39	.41	.42	1.00	.32	.59	.28
SS4f	.37	.35	.38	.50	.32	1.00	.39	.24
SS4g	.40	.44	.43	.19	.59	.39	1.00	.20
SS4o	.33	.21	.17	.36	.28	.24	.20	1.00

Appendix H

Correlation Matrix for the 20 Observed Variables for Co-National Identification

	CNIa	CNIb	CNIc	CNId	CNIe	CNIf	CNIg	CNIh	CNIi	CNIj	CNIk	CNIl	CNIm	CNIn	CNIo	CNIp	CNIq	CNIr	CNIs	CNIt
CNIa	1.00	.63	.53	.48	.40	.43	.47	.49	.35	.28	.41	.40	.37	.41	.39	.24	.21	.22	.41	.34
CNIb	.63	1.00	.54	.51	.36	.51	.54	.43	.39	.37	.41	.39	.49	.34	.39	.28	.38	.27	.45	.44
CNIc	.53	.54	1.00	.54	.42	.52	.44	.58	.39	.46	.38	.46	.46	.44	.51	.41	.28	.37	.53	.50
CNId	.48	.51	.54	1.00	.48	.52	.50	.49	.44	.33	.34	.40	.45	.53	.55	.38	.39	.28	.56	.43
CNIe	.40	.36	.42	.48	1.00	.54	.24	.45	.40	.31	.31	.32	.36	.42	.48	.31	.37	.38	.48	.42
CNIf	.43	.51	.52	.52	.54	1.00	.48	.56	.53	.35	.41	.41	.58	.46	.52	.33	.33	.39	.56	.49
CNIg	.47	.54	.44	.50	.24	.48	1.00	.54	.47	.42	.34	.47	.57	.42	.43	.31	.28	.24	.40	.41
CNIh	.49	.43	.58	.49	.45	.56	.54	1.00	.42	.48	.47	.57	.55	.40	.47	.38	.42	.53	.52	.44
CNIi	.35	.39	.39	.44	.40	.53	.47	.42	1.00	.36	.36	.49	.57	.43	.53	.45	.39	.47	.55	.55
CNIj	.28	.37	.46	.33	.31	.35	.42	.48	.36	1.00	.52	.56	.49	.29	.42	.40	.29	.43	.30	.52
CNIk	.41	.41	.38	.34	.31	.41	.34	.47	.36	.52	1.00	.57	.53	.28	.36	.31	.17	.33	.35	.39
CNIl	.40	.39	.46	.40	.32	.41	.47	.57	.49	.56	.57	1.00	.67	.52	.49	.38	.27	.45	.54	.50
CNIm	.37	.49	.46	.45	.36	.58	.57	.55	.57	.49	.53	.67	1.00	.53	.52	.41	.38	.43	.59	.53
CNIn	.41	.34	.44	.53	.42	.46	.42	.40	.43	.29	.28	.52	.53	1.00	.51	.33	.22	.28	.53	.49
CNIo	.39	.39	.51	.55	.48	.52	.43	.47	.53	.42	.36	.49	.52	.51	1.00	.58	.44	.46	.48	.61
CNIp	.24	.28	.41	.38	.31	.33	.31	.38	.45	.40	.31	.38	.41	.33	.58	1.00	.41	.53	.52	.56
CNIq	.21	.38	.28	.39	.37	.33	.28	.42	.39	.29	.17	.27	.38	.22	.44	.41	1.00	.52	.42	.39
CNIr	.22	.27	.37	.28	.38	.39	.24	.53	.47	.43	.33	.45	.43	.28	.46	.53	.52	1.00	.53	.53
CNIs	.41	.45	.53	.56	.48	.56	.40	.52	.55	.30	.35	.54	.59	.53	.48	.52	.42	.53	1.00	.57
CNIt	.34	.44	.50	.43	.42	.49	.41	.44	.55	.52	.39	.50	.53	.49	.61	.56	.39	.53	.57	1.00

Appendix I

Correlation Matrix for the 20 Observed Variables for Host-National Identification

	HNIa	HNIb	HNIc	HNId	HNIe	HNIf	HNIg	HNIh	HNIi	HNIj	HNIk	HNIl	HNIm	HNIn	HNIo	HNIp	HNIq	HNIr	HNIs	HNIt
HNIa	1.00	.55	.52	.45	.45	.40	.43	.32	.42	.33	.40	.35	.32	.34	.30	.39	.25	.31	.44	.39
HNIb	.55	1.00	.46	.32	.39	.41	.50	.29	.41	.32	.39	.34	.39	.38	.34	.32	.20	.26	.35	.44
HNIc	.52	.46	1.00	.53	.48	.53	.44	.46	.39	.48	.41	.43	.48	.45	.43	.51	.35	.44	.49	.48
HNId	.45	.32	.53	1.00	.48	.48	.46	.40	.45	.34	.28	.42	.43	.41	.36	.45	.49	.34	.47	.38
HNIe	.45	.39	.48	.48	1.00	.47	.32	.39	.43	.46	.44	.41	.49	.47	.47	.51	.46	.44	.48	.40
HNIf	.40	.41	.53	.48	.47	1.00	.44	.52	.52	.41	.36	.38	.49	.36	.32	.38	.37	.47	.44	.52
HNIg	.43	.50	.44	.46	.32	.44	1.00	.65	.48	.42	.30	.35	.42	.38	.21	.35	.33	.33	.31	.41
HNIh	.32	.29	.46	.40	.39	.52	.65	1.00	.52	.59	.32	.44	.46	.38	.41	.42	.45	.47	.38	.46
HNIi	.42	.41	.39	.45	.43	.52	.48	.52	1.00	.46	.37	.44	.50	.43	.32	.40	.43	.40	.50	.48
HNIj	.33	.32	.48	.34	.46	.41	.42	.59	.46	1.00	.42	.46	.51	.45	.47	.47	.52	.59	.49	.48
HNIk	.40	.39	.41	.28	.44	.36	.30	.32	.37	.42	1.00	.56	.54	.37	.37	.41	.26	.40	.44	.45
HNIl	.35	.34	.43	.42	.41	.38	.35	.44	.44	.46	.56	1.00	.65	.58	.48	.47	.45	.40	.55	.57
HNIm	.32	.39	.48	.43	.49	.49	.42	.46	.50	.51	.54	.65	1.00	.61	.46	.51	.42	.43	.54	.58
HNIn	.34	.38	.45	.41	.47	.36	.38	.38	.43	.45	.37	.58	.61	1.00	.42	.44	.38	.31	.52	.54
HNIo	.30	.34	.43	.36	.47	.32	.21	.41	.32	.47	.37	.48	.46	.42	1.00	.70	.47	.48	.47	.56
HNIp	.39	.32	.51	.45	.51	.38	.35	.42	.40	.47	.41	.47	.51	.44	.70	1.00	.64	.56	.54	.52
HNIq	.25	.20	.35	.49	.46	.37	.33	.45	.43	.52	.26	.45	.42	.38	.47	.64	1.00	.59	.59	.43
HNIr	.31	.26	.44	.34	.44	.47	.33	.47	.40	.59	.40	.40	.43	.31	.48	.56	.59	1.00	.55	.49
HNIs	.44	.35	.49	.47	.48	.44	.31	.38	.50	.49	.44	.55	.54	.52	.47	.54	.59	.55	1.00	.59
HNIt	.39	.44	.48	.38	.40	.52	.41	.46	.48	.48	.45	.57	.58	.54	.56	.52	.43	.49	.59	1.00

REFERENCES

Ady, J. C. (1995). Toward a differential demand model of sojourner adjustment. In R. L. Wiseman (Ed.), *Intercultural communication theory* (pp. 92-114). London: Sage.

Allgöwer, A., Wardle, J., & Steptoe, A. (2001). Depressive symptoms, social support, and personal health behaviors in young men and women. *Health Psychology, 20*(3), 223-227.

Anderson, P. H., Lawton, L., Rexeisen, R. J., & Hubbard, A. C. (2006). Short-term study abroad and intercultural sensitivity: A pilot study. *International Journal of Intercultural Relations, 30*, 457-469.

American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (2014). *Standards for educational and psychological testing*. Washington, DC: AERA.

America's top states for business 2016: A scorecard on state economic climate. (2016, July 12). Retrieved from http://www.cnbc.com/2016/07/12/americas-top-states-for-business-2016-the-list-and-ranking.html

Arnett, C. (2013). Syntactic gains in short-term study abroad. *Foreign Language Annals*, *46*(4), 705-712.

Artino, A. R., La Rochelle, J. S., Dezee, K. J., & Gehlbach, H. (2014). Developing questionnaires for educational research: AMEE Guide No. 87. *Medical Teacher*, *36*(6), 463-474. Retrieved from http://doi.org/10.3109/0142159X.2014.889814

Aubrey, R. (1991). International students on campus: A challenge for counselors, medical providers, and clinicians. *Smith College Studies in Social Work, 62*, 20-33.

Bandalos, D. L., & Boehm-Kaufman, M. R. (2009). Four common misconceptions in exploratory factor analysis. In Lance, C. E. & Vandenberg, R. J. (Eds.), *Statistical and methodological myths and urban legends: Doctrine, verity and fable in the organizational and social sciences* (pp. 61-87). New York, NY: Routledge.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71-81). New York: Academic Press.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. Stanford: W. H. Freeman.

Baxton, M., & West, E. (2014, April 1). The power of partnerships in international admissions [Web log post]. Retrieved from http://chronicle.com/blogs/headcount/the-power-of-partnerships-in-international-admissions/37923

Berdan, S. N. (2015). Study abroad could be so much better. *Chronicle of Higher Education, 61*(31), 27.

Berry, J.W. (1990). Psychology of acculturation. In R. W. Brislin (Ed.), *Applied cross-cultural psychology* (pp. 232-243). Newbury Park, CA: Sage.

Berry, J.W. (1997). Immigration, acculturation, and adaptation. *Applied Psychology: An International Review, 46*(1), 5-68.

Berry, J.W. (2009). A critique of critical acculturation. *International Journal of Intercultural Relations, 33*, 361-371.

Berry, J.W., Kim, U. Power, S., Young, M., & Bujaki, M. (1989). Acculturation attitudes in plural societies. *Applied Psychology: An International Review, 38*, 185-206.

Brisset, C., Safdar, S., Lewis, J.R., & Sabatier, C. (2010). Psychological and sociocultural adaptation of university students in France: The case of Vietnamese international students. *International Journal of Intercultural Relations, 34*(4), 413-426.

Brown, J. D. (2001). *Using surveys in language programs*. Cambridge: Cambridge University Press.

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. *Sociological Methods & Research*, *21*(2), 230-258.

Byrne, B. M. (2012). *Structural equation modeling with Mplus: Basic concepts, applications, and programming*. New York: Routledge.

Carlson, J., Burns, B., Useem, J., & Yachimowicz, D. (1990). *Study abroad: The experience of American undergraduates in Western Europe and the United States*. New York: Greenwood Press.

Carnevale, D. (2005, April 22). Study ranks top foreign markets for distance learning. *Chronicle of Higher Education, 51*(33), p.44.

Chao, R. (2012). Managing perceived stress among college students: The role of social support and dysfunctional coping. *Journal of College Counseling, 15*, 5-21.

Chapdelaine, R. F., & Alexitch, L. (2004). Social skills difficulty: Model of culture shock for international graduate students. *Journal of College Student Development, 45*(2) 167-184.

Chen, C. P. (1999). Common stressors among international college students: Research and counseling implications. *Journal of College Counseling, 2*, 49-65.

Chirkov, V.I., Safdar, S., de Guzman, J., & Playford, K. (2008). Further examining the role motivation to study abroad plays in the adaptation of international students in Canada. *International Journal of Intercultural Relations, 32*(5), 427-440.

Chow, P. (2011). *What international students think about U.S. higher education: Attitudes and perceptions of prospective students in Africa, Asia, Europe and Latin America.* Retrieved from http://www.iie.org/Research-and-Publications/Publications-and-Reports/IIE-Bookstore/~/media/Files/Corporate/Open-Doors/Special-Reports/IIE_Student_Attitudinal_Survey_Report.ashx

Christie, N. G., & Dinham, S. M. (1991). Institutional and external influences on social integration in the freshman year. *The Journal of Higher Education, 62*(4), 412-436.

Choudaha, R., & Chang, L. (2012, February 1). Trends in international student mobility. *World Education News & Reviews, 25*(2), February 2012. Retrieved from http://ssrn.com/abstract=2184988

Cohen, S. (2004). Social relationships and health. *American Psychologist, 59*(8), 676-684.

Collentine, J. (2004). The effects of learning contexts on morphosyntactic and lexical development. *Studies in Second Language Acquisition, 26*(2), 227-248.

Cudaback, C. (2009). Survey instrument validation: The first commandment of educational research. In Lord, T. R., French, D. P., and Crow, L. W. (Eds.), *College science teachers guide to assessment* (pp. 3-6). Arlington, VA: National Science Teachers Association.

Dao, T. K., Lee, D., & Chang. H. L. (2007). Acculturation level, perceived English fluency, perceived social support level, and depression among Taiwanese international students. *College Student Journal, 41*(2), 287-295.

Dewey, D. P. (2004). A comparison of reading development by learners of Japanese in intensive domestic immersion and study abroad contexts. *Studies in Second Language Acquisition, 26*(2), 303-327.

Diaz-Campos, M. (2004). Context of learning in the acquisition of Spanish second language phonology. *Studies in Second Language Acquisition, 26*(2), 249-273.

Dimitrov, D. M. (2011). *Statistical methods for validation of assessment scale data in counseling and related fields*. Alexandria, VA: American Counseling Association.

Doi, S. I. (2009). *The life of ESL students*. Unpublished paper written for EDEA 604 Qualitative Research Course, University of Hawai‘i at Mānoa, Honolulu, HI.

Donovan, J. J., & Williams, K. J. (2003). Missing the mark: Effects of time and casual attributions on goal revision in response to goal performance discrepancies. *Journal of Applied Psychology, 88*(3), 379-390.

Eastwood, D. (2015, May 30). Imaginative alliances: the key to a successful global research agenda. *Chronicle of Higher Education*. p. 7.

Ennew, C. T., & Fujia, Y. (2009). Foreign universities in China: A case study. *European Journal of Education, 44*(1), 21-36.

Evergreen, S., Gullickson, A., Mann, C., & Welch, W. (2011). *Webinar: Developing & validating survey instruments*. Retrieved from http://www.evalu-ate.org/webinars/2011_may/

Fischer, K. (2009). U.S. colleges get serious with partners overseas. *Chronicle of Higher Education, 55*(25), pp. A1-A29.

Fischer, K. (2010). American colleges look to private sector for global recruiting. *Chronicle of Higher Education, 56*(37), pp. A1-A26.

Fischer, K. (2012). In study abroad, men are hard to find. *Chronicle of Higher Education, 58*(25), pp. A1-A14.

Fischer, K. (2015). Navigating NYU's 'island' in China. *Chronicle of Higher Education, 62*(3), p. 32.

Fontaine, G. (2006). *Successfully Meeting the Three Challenges of all International Assignments.* Available from http://www.amazon.com/Successfully-Meeting-Challenges-International-Assignments-ebook/dp/B007M3WDS0

Fontaine, G. (2012). *Presence in Strange Lands*. Available from http://www.ebookmall.com/ebook/presence-in-strange-lands/gary-fontaine/312155

Freed, B. F. (1995). What makes us think that students who study abroad become fluent. *Second Language Acquisition in a Study Abroad Context*, *9*, 123-148.

Freed B. F., Segalowitz, N., & Dewey, D. P. (2004). Context of learning and second language fluency in French: Comparing regular classroom, study abroad, and intensive domestic immersion programs. *Studies in Second Language Acquisition, 26*(2), 275-301.

Furnham, A., & Bochner, S. (1986). *Culture shock: Psychological reactions to unfamiliar environments*. London: Methuen.

Gargiulo, M., & Benassi, M. (2000). Trapped in your own net? Network cohesion, structural holes, and the adaptation of social capital. *Organization Science, 11*(2), 183-196.

Garrido, L. E., Abad, F. J., & Ponsoda, V. (2013). A new look at Horn's parallel analysis with ordinal variables. *Psychological Methods, 18*(4), 454-474.

Garrido, L. E., Abad, F. J., & Ponsoda, V. (2016). Are fit indices really fit to estimate the number of factors with categorical variables? Some cautionary findings via monte carlo simulation. *Psychological Methods, 21*(1), 93-111

Gass, S, M. (2003). Input and interaction. In Doughty, C. J., & Long, M. H. (Eds.), *The handbook of second language acquisition* (pp. 224-255). Malden, MA: Blackwell Publishing.

Geiser, C. (2012). *Data analysis with Mplus*. New York, NY: Guilford Press.

Gerdes, H., & Mallinckrodt, B. (1994). Emotional, social, and academic adjustment of college students: A longitudinal study of retention. *Journal of Counseling & Development*, *72*(3), 281-288.

Gill, S. (2007). Overseas students' intercultural adaptation as intercultural learning: a transformative framework. *Compare, 37*(2), 167-183.

Gray, K. Murdock, G., & Stebbins, C. (2002). Assessing study abroad's effect on an international mission. *Change, 34*(3), 44.

Grey, S., Cox, J. G., Serafini, E. J., & Sanz, C. (2015). The role of individual differences in the study abroad context: Cognitive capacity and language development during short-term intensive language exposure. *The Modern Language Journal*, *99*(1), 137-157.

Graves, T. D. (1967). Psychological acculturation in a tri-ethnic community. *Southwestern Journal of Anthropology, 23*(4), 337-350.

Hair, J., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th *Ed*.). Upper Saddle River, New Jersey: Prentice Hall.

Hayes, R. L., & Lin, H. R. (1994). Coming to America: Developing social support systems for international students. *Journal of Multicultural Counseling and Development*, *22*(1), 7-16.

Hefner, J., & Eisenberg, D. (2009). Social support and mental health among college students. *American Journal of Orthopsychiatry*, *79*(4), 491-499.

Hendrickson, B., Rosen, D., & Aune, R. K. (2011). An analysis of friendship networks, social connectedness, homesickness, and satisfaction levels of international students. *International Journal of Intercultural Relations*, *35*(3), 281-295.

Horn, J. L. (1965). A rationale and test for the number of factors in factor analysis. *Psychometrika, 30*, 179-185.

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55.

Huang, F. (2007). Internationalization of higher education in the developing and emerging countries: A focus on transnational higher education in Asia. *Journal of Studies in International Education, 11*(3-4), 421-432.

IBM Corporation. (2013). *IBM SPSS Statistics for Macintosh (Version 21.0)* [Computer software]. Armonk, NY: IBM Corp.

Institute of International Education. (2015a, November). *Open doors 2015 "Economic impact of international students"*. Retrieved from http://www.iie.org/Research-and-Publications/Open-Doors/Data/Economic-Impact-of-International-Students

Institute of International Education. (2015b, March). *What international students think about U.S. higher education: Attitudes and perceptions of prospective students from around the world.* Retrieved from http://www.iie.org/Research-and-Publications/Open-Doors

Jou, Y. H., & Fukuda, H. (1996). The causes and influence of transitional stress among Chinese students in Japan. *The Journal of Social Psychology, 136*(4), 501-509.

Kitaoka, S. (2008, November). *Mental health for Japanese international students.* Paper presented at the bi-regional conference of the NASFA: Association of International Educators, Honolulu, HI.

Kline, R. B. (2015). *Principles and practice of structural equation modeling (4th Ed.)*. New York, NY: Guilford publications.

Krishnan, A., & Berry, J. W. (1992). Acculturative stress and acculturation attitudes among Indian immigrants to the United States. *Psychology & Developing Societies*, *4*(2), 187-212.

Kurata, N. (2007). Language choice and second language learning opportunities in learners' social networks: A case study of an Australian learner of Japanese. *Australian Review of Applied Linguistics, 30*(1), 05.1-18.

Lafford, B. A. (1995). Getting into, through and out of a survival situation. *Second Language Acquisition in a Study Abroad Context*, *9*, 97-121.

Lapkin, S., Hart, D., & Swain, M. (1995). A Canadian interprovincial exchange: Evaluating the linguistic impact of a three-month stay in Quebec. *Second Language Acquisition in a Study Abroad Context*, *9*, 67-94.

Larrotta, C. (2009). Final thoughts on community in adult ESL. *New Directions for Adult and Continuing Education, 121*, 75-77.

Lee, F. K., Sheldon, K. M., & Turban, D. B. (2003). Personality and the goal-striving process: The influence of achievement goals patterns, goal level, mental focus on performance and enjoyment. *Journal of Applied Psychology, 88*(2), 256-265.

Lee, J-S., Koeske, G., & Sales, E. (2004). Social support buffering of acculturative stress: A study of mental health symptoms among Korean international students. *International Journal of Intercultural Relations, 28*(5), 399-414.

Li, C. (2016). Confirmatory factor analysis with ordinal data: Comparing robust maximum likelihood and diagonally weighted least squares. *Behavior Research Methods, 48*(3), 936-949.

Locke, E. A. (1996). Motivation through conscious goal setting. *Applied and Preventive Psychology, 5*, 117-124.

Locke, E. A. (2001). Motivation by goal setting. In R. T. Golembiewski (Ed.), *Handbook of organizational behavior (2nd Ed.)* (pp. 43-54). New York: Marchel Dekker, Inc.

Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist, 57*(9), 705-717.

Locke, E. A., & Latham, G. P. (2006). New directions in goal-setting theory. *Current Directions in Psychological Science, 15*(5), 265-268.

Long, M. (1996). The role of the linguistic environment in second language acquisition. In Ritchie, W., & Bhatia, T. (Eds.), *Handbook of second language acquisition* (pp. 413-468). San Diego: Academic.

Lundberg, C. A., McIntire, D. D., & Creasman, C. T. (2008). Sources of social support and self-efficacy for adult students. *Journal of College Counseling*, *11*(1), 58-72.

Mallinckrodt, B., & Leong, F. T. L. (1992) International graduate students, stress, and social support. *Journal of College Student Development, 33*(1), 71-78.

Mangan, K. (2009). Foreign demand drops for American M.B.A.'s: Study finds. *Chronicle of Higher Education, 56*(14), p. A22.

Mānoa Career Center. (2016). Job Program & Eligibility Information. Retrieved from https://sece.its.hawaii.edu/sece/help/std/std_jobprogram_help.html

Martinez, L. (2011). The study abroad advantage. *Diverse: Issues In Higher Education*, *28*(21), 25.

Martinsen, R. A., Baker, W., Bown, J., & Johnson, C. (2011). The benefits of living in foreign language housing: The effect of language use and second-language type on oral proficiency gains. *The Modern Language Journal*, *95*(2), 274-290.

Masuda, K. (2011). Acquiring interactional competence in a study abroad context: Japanese language learners' use of the interactional particle ne. *The Modern Language Journal*, *95*(4), 519-540.

Matsumura, S. (2001). Learning the rules for offering advice: A quantitative approach to second language socialization. *Language Learning*, *51*(4), 635-679.

Matsumura, S. (2003). Modeling the relationships among interlanguage pragmatic development, L2 proficiency, and exposure to L2. *Applied Linguistics*, *24*(4), 465-491.

Matsumura, S. (2007). Exploring the aftereffects of study abroad on interlanguage pragmatic development. *Intercultural Pragmatics*, *4*(2), 167-192.

McMurtrie, B. (2009). Global downturn is not all bad news for international educators. *Chronicle of Higher Education, 55*(26), p.25.

Miville, M., & Constantine, M. G. (2006). Sociocultural predictors of psychological help-seeking attitudes and behavior among Mexican American college students. *Cultural Diversity and Ethnic Minority Psychology, 12*(3), 420-432.

Muthén, B. O., du Toit, S. H. C., & Spisic, D. (1997). Robust inference using weighted least squares and quadratic estimating equations in latent variable modeling with categorical and continuous outcomes. Retrieved from http://www.statmodel.com/bmuthen/categorical.htm

Muthén, L. K., & Muthén, B. O. (1998-2015). *Mplus user's guide (7th Ed.)* [Computer software]. Los Angeles, CA: Muthén & Muthén.

Muthén, L.K., & Muthén, B.O. (2002). How to use a monte carlo study to decide on sample size and determine power. *Structural Equation Modeling, 4*, 599-620.

NAFSA: Association of International Educators. (2003). *Securing America's future: Global education for a global age*: *Report of the strategic task force on education abroad.* Retrieved from https://www.nafsa.org/public_policy.sec/public_policy_document/study_abroad_1/securing_america_s_future/

Neely, M. E., Schallert, D. L., Mohammed, S. S., Roberts, R. M., & Chen, Y. J. (2009). Self-kindness when facing stress: The role of self-compassion, goal regulation, and support in college students' well-being. *Motivation and Emotion*, *33*(1), 88-97.

New Intensive Courses in English. (2015). Ten-week NICE programs. Retrieved from http://www.nice.hawaii.edu/nice/10week.asp

Obst, D., & Forster, J. (2005). Perceptions of European higher education country report: USA. In Academic Cooperation Association Secretariat (Ed.), *Perceptions of European higher education in third countries.* Retrieved from http://www.iie.org/Research-and-Publications/Publications-and-Reports/IIE-Bookstore/International-Students-in-the-United-States

O'Connor, B. P. (2000). SPSS and SAS programs for determining the number of components using parallel analysis and Velicer's MAPtest. *Behavior Research Methods, Instruments, & Computers, 32*, 396-402.

O'Connor, D. B., Cobb, J., & O'Connor, R. C. (2003). Religiosity, stress and psychological distress: no evidence for an association among undergraduate students. *Personality and Individual Differences*, *34*(2), 211-217.

OECD. (2014). *Education at a glance 2014: OECD indicators*, OECD Publishing, Paris. Retrieved from https://www.oecd.org/edu/Education-at-a-Glance-2014.pdf

OECD. (2015). *Education at a glance 2015: OECD indicators*, OECD Publishing, Paris. Retrieved from http://www.oecd-ilibrary.org/education/education-at-a-glance-2015_eag-2015-en

Pedersen, E.R., Neighbors, C., Larimer, M. E., & Lee, C. M. (2011). Measuring sojourner adjustment among American students studying abroad. *International Journal of Intercultural Relations, 35*, 881-889.

Pederson, P.J. (2010). Assessing intercultural effectiveness outcomes in a year-long study abroad program. *International Journal of Intercultural Relations*, *36*, 70-80.

Playford, K., & Safdar, S. (2007). Various conceptualization of acculturation and the prediction of international students adaptations. In A. Chybicka, & M. Kazmierczak (Eds.), *Appreciating diversity: Cultural and gender issues* (pp. 37-66). Cracow: Impuls.

Poyrazli, S., Kavanaugh, P. R., Baker, A., & Al-Timimi, N. (2004). Social support and demographic correlates of acculturative stress in international students. *Journal of College Counseling*, *7*(1), 73-82.

Ramsay, S., Jones, E., & Barker, M. (2006). Relationship between adjustment and support types: Young and mature-aged local and international first year university students. *Higher Education, 54*, 246-265.

Rudmin, F. (2003). Critical history of the acculturation psychology of assimilation, separation, integration, and marginalization. *Review of General Psychology, 7*(1), 3-37.

Rudmin, F. (2009). Constructs, measurements and models of acculturation and acculturative stress. *International Journal of Intercultural Relations, 33*, 106-123.

Rudmin, F., & Ahmadzadeh, V. (2001). Psychometric critique of acculturation psychology: The case of Iranian migrants in Norway. *Scandinavian Journal of Psychology, 42*(1), 41-56.

Roberts, N. A., & Plakhotinik, M. S. (2009). Building social capital in the academy: The nature and function of support systems in graduate adult education. *New Directions for Adult and Continuing Education, 122*, 43-52.

Salisbury, M., Umbach, P., Paulsen, M., & Pascarella, E. (2009). Going global: Understanding the choice process of the intent to study abroad. *Research in Higher Education, 50*(2), 119-143.

Salisbury, M., Paulsen, M., & Pascarella, E. (2010). To see the world or stay at home: Applying an integrated student choice model to explore the gender gap in the intent to study abroad. *Research in Higher Education, 51*(7), 615-640.

Salisbury, M., Paulsen, M., & Pascarella, E. (2011). Why do all the study abroad students look alike? Applying an integrated student choice model to explore differences in the factors that Influence white and minority students' intent to study abroad. *Research in Higher Education, 52*(2), 123-150.

Sam, D. L., & Berry, J. W. (1995). Acculturative stress among young immigrants in Norway. *Scandinavian Journal of Psychology*, *36*(1), 10-24.

Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online, 8*(2), 23-74.

Schumacker, R. E., & Lomax, R. G. (2010). *A beginner's guide to structural equation modeling (3rd Ed.)*. New York, NY: Taylor & Francis Group.

Schmitz, P. (1992). Acculturation styles and health. In S. Iwawaki. Y. Kashima, & K. Leung (Eds.). *Innovations in cross-cultural psychology* (pp. 360-370). Amsterdam: Swets & Zeitlinger.

Schwarzer, D. (2009). Best practices for teaching the "whole" adult ESL learner. *New Directions for Adult and Continuing Education*, *2009*(121), 25-33.

Segalowitz, N., & Freed, B. F. (2004). Context, contact, and cognition in oral fluency acquisition: Learning Spanish in at home and study abroad contexts. *Studies in Second Language Acquisition*, *26*(02), 173-199.

Smith, J. (2009). Solidarity networks: what are they? And why should we care? *The Learning Organization, 16*, 460-468.

State of Hawai'i Department of Business, Economic Development & Tourism. (2015, November 3). Highlights for language spoken at home state of Hawai'i, 2009 to 2013. Retrieved from http://files.hawaii.gov/dbedt/census/acs/ACS2013/ACS2013_5_Year/Other_Files/Highlights_2009_13_acs_lang_spoke_home_hi.pdf

State of Hawai'i Department of Business, Economic Development & Tourism. (2016). 2015 population estimate summary data. Retrieved from http://files.hawaii.gov/dbedt/census/popestimate/2015_state_pop_hi/2015_popest_sumtab.pdf

Storch, N. (2002). Patterns of interaction in ESL pair work. *Language learning*, *52*(1), 119-158.

Sturgis, I. (2015, March 21). Global explorers. *Chronicle of Higher Education*. pp. 4-10.

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics (5th Ed.)*. Boston, MA: Allyn & Bacon.

Tadmor, C., Tetlock, P., & Peng, K. (2009). Acculturation strategies and integrative complexity: The cognitive implications of biculturalism. *Journal of Cross-*

Cultural Psychology, 40(1), 105-139.

Taguchi, N. (2011). The effect of L2 proficiency and study-abroad experience on pragmatic comprehension. *Language Learning*, *61*(3), 904-939.

Talburt, S., & Stewart, M. A. (1999). What's the subject of study abroad?: Race, gender, and "living culture". *The Modern Language Journal*, *83*(2), 163-175.

Thrift, N. (2010). The world needs global research cooperation urgently, and now. *Chronicle of Higher Education, 56*(23), p. A72.

U.S. Citizenship and Immigration Services. (2016). Students and employment. Retrieved from https://www.uscis.gov/working-united-states/students-and-exchange-visitors/students-and-employment

U.S. Department of Homeland Security. (2013). Study in the States: What is the form I-20? Retrieved from https://studyinthestates.dhs.gov/2013/01/what-is-the-form-i-20

U.S. Department of State - Bureau of Consular Affairs. (2016). Visa waiver program. Retrieve from https://travel.state.gov/content/visas/en/visit/visa-waiver-program.html

U.S. Immigration and Customs Enforcement. (2014). The Accreditation of English Language Training Programs Act. Retrieved from https://www.ice.gov/sevis/accreditation-act/

Van de Vijver, F. J. R., Helms-Lorenz M., & Feltzer, M. J. A. (1999). Acculturation and cognitive performance of migrant children in the Netherlands, *International Journal of Psychology, 34*(3), 149-162.

Van Lier, L. (1998). The relationship between consciousness, interaction and language learning. *Language awareness*, *7*(2-3), 128-145.

Van Oudenhoven, J. P., Prins, K. S., & Buunk, B. P. (1998). Attitudes of minority and majority members towards adaptation of immigrants. *European Journal of Social Psychology*, *28*, 995-1013.

Ward, C. (1999). Models and measurements of acculturation. In W. J. Lonner, D. L. Dinnel, D. K. Forgays, & S. Hayes (Eds), *Merging past, present and future: Selected proceedings of the XIVth International Congress of the International Association for Cross-cultural Psychology* (pp. 221-229). Lisse, The Netherlands: Swets & Zeitlinger.

Ward, C. (2001). The ABCs of acculturation. In D. Matsumoto (Ed.), *The handbook of culture and psychology* (pp. 411-445). New York, NY: Oxford University Press.

Ward, C., Bochner, S., & Furnham, A. (2001). *The psychology of culture shock*. New York, NY: Routledge.

Ward, C., & Kennedy, A. (1993). Psychological and sociocultural adjustment during cross-cultural transitions: A comparison of secondary students at home and abroad. *International Journal of Psychology, 28*, 129-147.

Ward, C., & Kennedy, A. (1994). Acculturation strategies, psychological adjustment, and sociocultural competence during cross-cultural transitions. *International Journal of Intercultural Relations, 18,* 329-343.

Ward, C., & Kennedy, A. (1999). The measurement of sociocultural adaptation. *International Journal of Intercultural Relations, 23*(4), 659-677.

Ward, C., & Rana-Deuba, A. (1999). Acculturation and adaptation revisited. *Journal of Cross-Cultural Psychology, 30*, 422-442.

Ward, C., & Rana-Deuba, A. (2000). Home and host cultural influences on sojourner adjustment. *International Journal of Intercultural Relations, 24*, 291-306.

Weinreich, P. (2009). 'Enculturation,' not 'acculturation': Conceptualizing and assessing identity processes in migrant communities. *International Journal of Intercultural Relations, 33*, 124-139.

Wildavsky, B. (2010). Why colleges shouldn't fear global competition. *Chronicle of Higher Education, 56*(30), A64.

Wildavsky, B. (2011). University globalization is here to stay. *Chronicle of Higher Education, 57*(1), 44.

Wilkinson, S. (2002). The omnipresent classroom during summer study abroad: American students in conversation with their French hosts. *The Modern Language Journal*, *86*(2), 157-173.

Williamson, W. (2010). 7 signs of successful study-abroad programs. *Chronicle of Higher Education, 56*(41), p. A27.

Wilson, J. (2013). *Exploring the past, present and future of cultural competency research: The revision and expansion of the sociocultural adaptation construct* (Unpublished doctoral dissertation). Victoria University of Wellington, New Zealand.

Wohlgemuth, E., & Betz, N. E. (1991). Gender as a moderator of the relationships of stress and social support to physical health in college students. *Journal of Counseling Psychology, 38*(3), 367-374.

Zhou, Y., Jindal-Snape, D., Topping, K., & Todman, J. (2008). Theoretical models of culture shock and adaptation in international students in higher education. *Studies in Higher Education, 33*(1), 63-75.